
BOAO FORUM FOR
ASIA
BOAO
Journal
Vol.1
2018.7

Contents

Foreword

The Boao Forum for Asia (BFA) boasts of a broadly-based community – a big family underpinned by tens of thousands of Asian and world leaders attending our various conferences and events since its inception in 2001. At the core of this big family are 29 initial countries, 36 members of the Board and Directors and Council of Advisors, 250 BFA members and some 100 business, media and intellectual partners. Your vision, wisdom, influence and persistent support lays the foundation for the growth of Boao in the past 18 years, and provide sustainable impetus to its way forward.

In order to enhance the cohesion of the Boao Family, the Secretariat of the Boao Forum, building on its previous e-letters, bulletin news and reports, now unveils this month Boao Journal as an internal platform of information-sharing and dialogues, which will be sent to the aforesaid members of the Boao Family by Email each month. The Journal will cover but not be limited to the following contents:

- What has BFA done that month, including conferences, events, reports
- In-depth analysis on Asian and global economies, mostly with regard to the 29 initial countries
- Key trends in industries where BFA members are mostly concerned
- Emerging technologies
- Views and stories of the Boao Family

What makes this Boao Journal different is that Boao Family members are both readers and authors. You are most welcome to contribute articles and comments on Asian and world economies, industries and technologies to our editorial staff as caoyi@boaoforum.org.

July. Hot summer. But in Asia 21 years ago, this sweating month brought chilling cold to Asian financial markets and economies. The Asian miracle was brought to an unexpected halt and awakened Asian economies to a sobering fact: on one hand, we must rethink their traditional growth models; on the other, Asia must stand united as one and turn to one another for greater economic integration so as to build resilience against similar external shocks. As a first step, the Boao Forum for Asia was conceived to nurture consensus and foster consolidarity to that end.

The Boao Journal is unveiled at such a historical month for a reason. We hope to remind members of the Boao Family why we are here and what we have come through. In a world that is growing increasingly sophisticated and uncertain, the Boao way, i.e. greater level of economic integration, remains the sustainable way forward for Asia and for the world.

LI Baodong
Secretary-General
Boao Forum for Asia (BFA)

BFA Events / People / Views

Chairman BAN Ki-moon Holds Meetings with ZHOU Xiaochuan, BFA Vice Chairman and LI Baodong, BFA Secretary General in Beijing

On May 14, 2018, BAN Ki-moon, Chairman of the Boao Forum for Asia (BFA), held a meeting with China's Chief Representative to the BFA and Vice Chairman of the BFA ZHOU Xiaochuan and BFA Secretary General LI Baodong, respectively, in Beijing and reached extensive consensus on the direction, strategy, and planning of the BFA.

The three leaders believe that the BFA is at an important juncture, as the follower of past practices and a trailblazer for future work. In the past 17 years, the BFA, with a focus on Asia and a global perspective, has played an important role in building Asian consensus, promoting Asian cooperation, and creating a community of shared future in Asia. In the future, the Forum should keep its focus on and serve Asia. At the same time, with a global perspective, the Forum shall remain open and inclusive as well as strengthen the building of its partner network globally.

The Board of Directors and the Council of Advisors are the forum's principal decision-making and advisory bodies. It is hoped that the directors and the advisors could play an active role in guiding the formulation of the Forum's future development strategies and work plans, and harness their respective influence in their countries and regions to provide practical support and guarantee for the expansion of the Forum's network, membership and influence.

The three leaders thanked the 29 BFA initial countries, especially the host country China, for their long-term support, saying that the Forum will expand and deepen the cooperation with the them and lay a solid foundation for the sustainable development of the Forum.

“Meeting the BFA New Leadership” Reception

On the evening of May 14, 2018, the Boao Forum for Asia (BFA) held the "Meeting the New Leadership of the Boao Forum for Asia" at Beijing Hotel. BFA Chairman BAN Ki-moon, Vice Chairman ZHOU Xiaochuan and Secretary-General LI Baodong attended the meeting as well as delivered keynote speeches. More than 300 people including the diplomatic envoys from the BFA initial countries, BFA Advisors BFA Members, BFA Partners, experts, scholars and media friends were invited to the event. This is the first time that the leadership of the BFA officially meet with its Members after the new Board of Directors of the BFA was elected in April this year.

In his speech, BAN Ki-moon stressed that the Boao Forum for Asia, as the principal platform for Asia and emerging economies, has positioned itself clearly and prominently. Taking the entrepreneurs as the main body and featuring the government - business dialogues as the characteristics, BFA , as compared to the United Nations and other intergovernmental organizations, has a unique and valid value and role in promoting peace and development in Asia and the world.. Based in Asia and oriented to the world, the Forum has made remarkable achievements through the joint efforts of the previous Boards of Directors and its Members. In today's world characterized by uncertainties in the global economy and rising anti-globalization and protectionism, BFA should make its stance in support of globalization and free trade and adopt the firm attitude of openness and progress.

ZHOU Xiaochuan stated that structural reforms and opening up to the outside world are two fundamental issues facing both Asia and the world. President XI Jinping delivered an important speech at the opening ceremony of the BFA Annual Conference 2018 in the capacity as the leader of the host country, beating the drum for economic globalization by China's determination and practical measures for deepening reform and opening wider to the world. This is an encouraging sign. Based on the mission of Asian economic integration, Boao Forum for Asia shall contribute to Asia's structural reforms and opening up to the outside world.

LI Baodong said that the BFA Annual Conference focusing on economic topics is the basis, core competitiveness, and the top brand of the Forum, and must be developed and expanded. As new technologies, new trends, new problems, and new challenges emerge, the Forum needs to keep at the forefront of the times, become a trailblazer, and actively participate in discussions and formulation of rules. In the future, while maintaining the characteristics as an economic forum, BFA will expand its scope in five new areas of intelligence, health, culture, education, and media. It is hoped that the BFA members could actively participate in the Forum's new initiatives and new attempts.

Before the meeting, the leadership of the BFA held private meeting with BFA Partners & Members and some diplomatic envoys.

Chairman Ban Ki-moon's Speech at the Reception in honor of the New BFA Leadership

May 14, 2018
Beijing

Chairman Ban Ki-moon visited Beijing on May 14-15 in his new capacity of Chairman of the Boao Forum for Asia. Here's a full text of his speech at the BFA Reception on May 14 in Beijing Hotel:

Vice Chairman Zhou
Secretary General Li
Members of the Boao Family
Ladies and gentlemen

It is a great pleasure to meet you. I see a lot of familiar faces, just got to know a few new friends and there are still many for me to familiarize. Thank you all for coming here, the first time that the new BFA leadership gather together with members of the Boao Family.

At the Boao Forum for Asia Annual Conference which was concluded a month ago, the General Meeting of BFA members elected the new Board of Directors. I myself was honored to be elected by the Board as its chairman.

This new posting brings both excitement and new challenges. I have for long been working in international affairs and lately headed the United Nations as its Secretary General. These experiences are mostly intergovernmental. Boao is different. It is an international organization featuring high-level dialogues between political and business leaders. The business community, as represented by most of you here tonight, is the mainstay and foundation. Presidents, prime ministers, heads of international institutions and ministers are invited to sit down face-to-face with CEOs, listening to their concerns, identifying problems, finding solutions, building consensus and setting well-informed policies. For me, this represents a different but equally important and effective approach towards addressing challenges our world faces today. My first experience at the just concluded Annual Conference 2018 tells me that this approach works perfectly well.

I admire the founders of the Forum for their far-sightedness in naming the forum as the Boao Forum **"for"** Asia, not the Boao Forum **"of"** Asia or **"in"** Asia. In the vision of the Founders, Boao should not limit itself by geographic boundaries. It is focused on Asia but within the global context and with a global perspective. In another word, this is a global forum for Asia, pooling the wisdom and insight of the world to build a better future for Asia. That's why we have one-third delegates from outside Asia joining us each year. As President Xi put it in his opening speech this April, the Boao Forum is "based in Asia" and "facing the world".

The Boao Forum for Asia emerged out of the Asian financial storm two decades ago, learning lessons that Asia must stand united as one, open as an integral and growing part of globalization and free trade, and innovative as a latecomer but potential front-runner. Today, Asia has achieved a lot in economic integration with intra-Asia trade and investment accounting for over half of its total. Asia is a great beneficiary, contributor and hence staunch supporter of globalization. The Asian Miracle, in a large way, is the miracle of globalization and free trade. Asia is rapidly catching up with and in a way overtaking the west in R&D and innovation.

The Boao Forum for Asia takes pride in what has been achieved so far, but is fully conscious of the challenges ahead. As the theme of the Annual Conference 2018 put it, Asia must stay open and innovative amid the disturbing signs of de-globalization and protectionism.

As chairman of this prestigious forum, I feel encouraged by what I heard and saw in Boao this April. President Xi was joined by leaders of 6 countries and two international organizations in reaffirming support for globalization, with not just political will, but down-to-earth policies and actions.

I am equally encouraged when I sit down with my colleagues at the Board, which itself was a perfect combination of political and business leaders united under the mission and purposes of the Boao Forum. I am privileged to have Governor Zhou as the vice chairman. He is well known and respected for steering China's central bank through some of the most challenging times, most recently the global financial crisis. I am privileged to have Minister Li as the Secretary General. We were close colleagues at the United Nations. He was a great representative at his country and I'm sure he will be a great representative of Asia now leading this prestigious Forum as its CEO.

I am pleased to join this grand Boao family and look forward to working with you for an open, innovative and prosperous future of our Asia.

Thank you!

Vice Chairman Zhou Xiaochuan's Speech Speech at the Reception in honor of the New BFA Leadership

May 14, 2018
Beijing

Vice Chairman Zhou Xiaochuan attended the BFA Reception on May 14 in Beijing Hotel. Here's a full text of his speech:

Chairman Ban
Secretary General Li
Members of the Boao Family
Ladies and gentlemen

Thank you, Chairman Ban, for your kind words on me. I feel flattered personally. But I think your good words on the Boao Forum for Asia, its achievements and the potential are well justified. Let me join you by saying how much we appreciate the opportunity to be part of this prestigious institution and its mission of bringing Asia closer together.

As Chairman Ban mentioned, I have long worked in the financial area as a regulator, and witnessed the historic transformation taking place in both China and Asia. If you ask me, in the simplest possible way, what is the secret of China's success or more broadly the Asian Miracle, I would say two things are vital: structural reform and opening up.

For China, this is the case. This year, we are celebrating the 40th Anniversary of China's reform and opening up. There is an overwhelming consensus, as articulated by President Xi in his April address in Boao, that China's historical achievements in the last four decades are attributed to a consistent national policy of reform and opening up, and that China must continue this policy for the next four decades with bolder structural reforms and wider opening to the world.

This does not just apply to China. It is equally critical to Asia and the world. The challenge is to build such consensus Asia-wide and globally, and translate into policies and actions. That is what the Boao Forum for Asia has been doing for the last 18 years, but the challenges are still there: Countries understand the need and urgency of structural reform, but might balk at the ensuing pains and political costs; opening to a globalized world offers the best hope for developing countries to grow and alleviate poverty and for developed countries to move up the value chain, but countries might succumb to vested interests at home and turn inward.

This is also the challenge for the Boao Forum for Asia, for its new Board of Directors and for me as the Vice Chairman. When I shift responsibility from the Chinese economy to the economic integration of Asia as a whole, what has not changed is my firm belief in the two critical factors to economic success: structural reforms are the homework of each and every Asian nation in building its economic "fitness" and resilience; opening up to one another help improve a country's competitiveness and make the best of an integrated Asia and a globalized world.

In this connection, I echo what Chairman Ban has said and the theme of the just concluded Annual Conference 2018: Asia must stay open and innovative for the greater prosperity of the world.

My responsibility at the Boao Forum is two-fold. Aside from being the vice chairman of the Board, I was appointed by the host country, China, as its chief representative to the Forum. Two decades ago, when the founders of the Forum was looking for a permanent venue for its annual conferences, they were impressed by the strong support and warm hospitality of the Chinese government and decided on Boao as the final choice.

This is a choice based on the firm commitment of the Chinese government that China will do its best to ensure the long-term and sustainable future of the Forum and its mission. When China makes a commitment, it honors its words. My job, as the chief representative of China to the Forum, as my predecessors, is to ensure that this commitment is honored to the letter.

Chairman Ban, Secretary General Li, Members of the Boao family, I have every confidence in a better future of the Boao Forum and Asia, and I look forward to working with you to that end.

Thank you!

Secretary General Li's Speech at the Meeting with BFA Partners and Members

May 14, 2018
Beijing

Secretary General Li Baodong made a closing speech at the meeting with BFA Partners and members on May 14. Here's the full text of his speech:

Chairman Ban,
Vice Chairman Zhou,
BFA Partners and Members,

Thank you for attending this private meeting between the new BFA leadership and a select number of core BFA partners and members. In a while, there will be a formal dinner between Chairman Ban, Vice Chairman Zhou and myself and approximately 300 members of the wider Boao Family. Before that, the three of us wish to have such an opportunity of closed-door, face-to-face conversation with you given your long-term, consistent and valuable support to the Boao Forum.

I believe that the greatest challenge of the Boao Forum is to keep pace with the changing times and be a front-runner, not a follower. This is a fast-changing and increasingly sophisticated world. New technologies, new trends, new issues and new challenges keep popping up. The Boao Forum, as the premier forum for Asia and emerging markets, must lead the debate, build consensus and come up with inspiring ideas, solutions and initiatives. President Xi, in meeting with the Board of Directors, placed high hopes on the Forum specifically. We should not let him down. We should not let Asian leaders down. And we should not let the vast members of the Boao Family down.

The Boao Forum for Asia is an international economic forum with the annual conference as its flagship and the best-known brand. This is where our core competitiveness lies, and remains the No. 1 priority on our agenda. But we can not just stop here. The new technologies, trends, issues and challenges, as well as the increasing diversity and expectations of our members, call for an expansion of BFA agenda into new areas where we need to be the forerunner, not just a follower.

We have spoken extensively with members of the Boao Family and other stakeholders, and identified five new areas for the future of Boao.

First, **disruptive technologies** such as Artificial Intelligence, Big Data, Cloud Computing, Robotics, Blockchain, Internet of Things and so on. Not all disruptive technologies end up in a technological revolution, but we can not afford to miss any that might have the potential. The Boao Forum for Asia started with an economic focus. From now on, it needs to be tech-savvy.

Second, **healthcare**. This is not just one of the Top-3 priorities in developed countries. In Asia and emerging markets, the rise of middle-class population has made healthcare an increasingly urgent concern, let alone the vast number of people below the poverty line without access to basic healthcare. The Boao Forum must integrate such a critical challenge into its agenda.

Third, **education**. The long-term and sustainable development, in the final analysis, hinges on education, from kindergartens, primary schools, high school all the way up to universities and colleges. And it's not just about spending more, but spending better, spending smart, and spending on the core competitiveness of a nation.

Fourth, **culture**. Culture is a key part of a nation's soft power. Cultural exchanges are an integral part of an economically globalized world. Diversity of cultures and civilizations breed creative thinking and innovation. Asia is known for its complexity and diversity in cultures. This is a challenge in bringing Asia together as one, but also an asset if the Boao Forum can tap into this diversity.

Fifth, **Media**. Media itself is undergoing unprecedented transformations. Both its content, technology and audience change in a way unexpected 20 years ago. The definition of media itself might need to change. The line between traditional media and new media is blurred.

The Boao Forum for Asia will certainly stick to its economic focus, but these five areas must be integrated into its agenda in order not to lag behind and fail the expectations of our members and Asian countries at large.

These are challenging tasks. As we expand into these new areas, we need support from all members of the Boao Family and all stakeholders, in particular our core BFA partners and members such as yourself. I invite you to join us in our new venture into these 5 areas.

BFA members and partners are increasingly important to us as Boao grows into a membership-based international institution. The membership will continuously expand with the expansion of our goals, functions and global footprint. Correspondingly, we need to improve our services to BFA partners and members.

The secretariat is planning a number of conferences and events for the near future. In the latter half of the year, the Forum will go overseas to South Korea, Japan and ASEAN countries, and offer our members opportunities of face-to-face dialogues with political and business leaders there. Beyond Asia, we are looking into possibilities of co-organizing conferences in European countries, including Italy and Switzerland.

On a more regular basis, we will design a number of workshops, lectures, seminars and industry visits tailor-made to the needs of BFA members.

In a word, BFA partners and members are the core and foundation of the Boao Forum.

In the new endeavor of the Boao Forum, we hope to have you with us as always and in return will upgrade and expand our services to make your BFA membership worthwhile.

Asia/World Economy

2018 Article IV Consultation for the United States Opening Remarks

By Christine Lagarde
（From IMF Website）

Christine Lagarde, Managing Director of IMF, outlines where IMF sees the U.S. now.

Near—Term U.S. Economic Outlook

The context of this year's consultation is a U.S. economy that is doing even better than last year. Growth is stronger, unemployment is near the lowest it has been since the 1960s, inflation is contained, and consumer and business confidence are high.

Within the next few years, the U.S. economy is expected to enter its longest expansion in recorded history. The Tax Cuts and Jobs Act and the approved increase in spending are providing a significant boost to the economy. We forecast growth of close to 3 percent this year but falling from that level over the medium-term. In my discussions with Secretary Mnuchin he was clear that he regards our medium-term outlook as too pessimistic. Frankly, I hope he is right. That would be good for both the U.S. and the world economy.

Several Risks on the Horizon

Despite this good news and a bright near-term outlook, at a longer horizon the U.S. economy faces several risks.

First, the planned expansion in the federal deficit at this stage of the cycle could trigger a faster-than-expected rise in inflation. That would be accompanied by a more rapid rise in interest rates that could increase market volatility both in the U.S. and abroad. We are already starting to see symptoms of such negative effects in some emerging market countries, and this might not be the end of it. An important role of the Fund is to warn against these risks and cross-border effects.

Second, the fiscal boost is likely to translate into faster import growth and a larger trade and current account deficit in the U.S. This will be matched by growing surpluses in other systemic economies. It may also lead to a stronger U.S. dollar. All of this could lead to a growth in global imbalances, an issue that we at the Fund have long been concerned about.

International Trade Policy

Recent actions by the U.S. to impose tariffs on imports come with further risks. Unilateral trade actions can be disruptive and may even prove counterproductive to the functioning of the global economy and trading system. As I have said before, in a so-called trade war, driven by reciprocal increases of import tariffs, nobody wins. One generally finds losers on both sides. Also, let us not understate the macroeconomic impact. It would be serious, not only if the United States took action, but especially if

other countries were to retaliate, notably those who would be most affected, such as Canada, Europe, and Germany, in particular.
We, therefore, encourage the U.S. to work constructively with its trading partners to resolve trade and investment disagreements without resorting to the imposition of tariff and non-tariff barriers.

Help to Poor Working Families
Our latest discussions with the U.S. authorities have focused on how to ward off these various risks that I have described and to ensure that living standards keep rising for the majority of Americans. Many of the policy details are laid out in the Concluding Statement that you have before you. Let me focus on a couple of our recommendations to help poor working families and to improve the educational system in the U.S. more broadly.

There is room to provide help to low-income families. Expanding eligibility for the earned income tax credit (EITC) as well as its size would raise the reward to work. That extra income for those entering the market at low wages—especially the young and those parents with young children—can help cover out-of-pocket costs, including transportation and child care. To further incentivize work, there is also room to avoid "cliffs" in social benefits by smoothing the phase-out for those that live close to the poverty line.

More can also be done to restore the U.S. competitive edge in education. Countries with the biggest export success have pulled way ahead of the U.S. in terms of science and math skills. Policies to regain the lead could include greater support for pre-K, and more resources for public primary and secondary schools, as well as the U.S. world-class research universities. Such outlays really would pay for themselves.

Dealing with the Fiscal Deficit
In our judgement, these policies need to be embedded in a sustained, gradual and balanced reduction in the fiscal deficit over the medium term, starting now. With the economy doing so well, what better time to do it?

However, our outlook is for growing U.S. deficits and debt. Certainly the solutions to these fiscal problems are politically difficult and will require a broad social consensus. But reducing government debt has the potential to create space to finance priorities that have broad public and legislative support, such as upgrading U.S. infrastructure.

Federal Reserve Policy
Finally, with the planned fiscal stimulus already in train, we believe that the Federal Reserve will need to raise policy rates at a faster pace to achieve its dual mandate. Of course, the Fed's continued adherence to the principles of data dependence and clear communication will be vital. I received strong assurances from Chairman Powell of his commitment to this point.

Conclusion
We believe the set of policies outlined in our Concluding Statement for this year's

Article IV Consultation will be both good for the U.S. and good for the global economy.

Finally, it would be remiss of me not to express the IMF's gratitude and appreciation for the time that U.S. officials have spent this year in facilitating the Article IV.

Euro 2.0: Past, Present, and Future of Euro Area Integration

Christine Lagarde
（From IMF website）

Christine Lagarde, Managing Director of IMF, speaks at the "The Euro at 20 Conference" in Dublin, Ireland.

(Full text)

Introduction

Thank you, Philip, for that very kind introduction.

It is a pleasure to welcome all of you to "The Euro at 20" conference jointly organized by the Central Bank of Ireland and the IMF.

We meet at a moment when the EU and euro area are in the midst of difficult decisions about their future. Populist movements — from Brexit to the recent Italian elections — have called into question the value of European integration.

Over the next two days I know you will examine that future and consider the ways we can improve integration going forward. But this conference is also an opportunity to look back — and appreciate just how far we have come.

Ireland is a fitting venue to find inspiration for this discussion. This is, after all, a country of poets. You know the most famous names — James Joyce, Oscar Wilde, Samuel Beckett, Seamus Heaney.

But today I thought I would start our conversation by borrowing from a lesser-known literary figure, Maria Edgeworth.

Edgeworth was a 19th century Irish writer, a contemporary of Jane Austen, and an economic thinker who frequently debated with David Ricardo. She once said, "If we take care of the moments, the years will take care of themselves."

So how, indeed, did we arrive at this moment and what can we do to make the most of it?

Looking back — 20 Years of the Euro

While our conference focuses on the 20 years since the creation of the euro, we know that the journey to integration dates back much further.

The common currency capped a 50-year quest to tear down economic borders. Today, 19 of 28 European Union members are part of the euro area, and the euro is the world's second major reserve currency.

It has been an incredibly fruitful endeavor. The links between European nations have gone beyond what many imagined in the aftermath of the Second World War.

European integration has raised standards of living across the continent. In the European Union, real GDP per person has increased 40 percent since the mid-1990s. This growth outpaces the expansion seen in the United States over the same period.[1]

But that is only part of the story. In the run up to the adoption of the euro in 1999, we saw strong convergence in real income levels among the original euro area members. Interest rates began to converge even before the common currency was introduced.

As we now know, in some cases, these shifts contributed to excessive borrowing, unsustainable growth levels, and eventually, the euro area crisis.

Indeed, several of the countries hit hardest during the global financial and euro area crises saw their income growth fall significantly behind that of their peers. Many countries are only now recovering to pre-crisis levels.

So, it has been a complicated journey, full of difficult moments — but in each step, we have learned valuable lessons.

Ireland proves the point

Ireland joined the European Communities in 1973, was a founding member of the European Exchange Rate Mechanism in 1979, and signed the Maastricht Treaty, which established the euro in 1992.

Up until the crisis, Ireland thrived in the Economic and Monetary Union. Many here will remember the "Celtic Tiger" economic boom in Ireland starting in the early-1990s.

Economic and financial integration, helped by structural reforms and openness to foreign investment and trade, propelled Ireland from one of EU's poorer members to one of the more prosperous.

In real terms, average Irish income per capita more than doubled since signing of the Maastricht treaty.

At the same time, growing financial integration between euro area countries following the Maastricht Treaty supported a rapid expansion of credit in some member states. This fueled unsustainable real estate booms in countries such as Ireland and Spain.

When boom turned to bust, Irish banks ran into serious trouble and Ireland found itself at the heart of the euro area debt crisis.

After difficult choices and sacrifices by the Irish people, and with support from

European partners and the IMF, the Irish economy has rebounded strongly.

In this way the Irish experience mirrors the overall experience of the euro area: at age 20, the euro area is more mature — battle scarred yes, but also stronger and ready to move forward.

And that brings us to our current moment.

Taking Stock of the Current Moment — The Euro at 20

To quote from a modern-day Irish poet, Bono, "It is stasis that kills you off, not ambition."

The euro area is at its best when it is ambitious. Think of what has been created over the past decade.

The European Stability Mechanism and its predecessors worked with the IMF and provided over 250 billion euros in loans to the five countries hit hardest by the crisis, and now with the ESM, credible crisis-fighting resources are at the ready.

The European Central Bank was also part of the effort to restore stability. When the crisis began to intensify in 2012, the ECB made clear that, within its mandate, it was willing to do "whatever it takes" to preserve the currency union.

Time and again, Europe rose to meet the challenges it faced, and in the process undertook key institutional reforms.

For example, the development of the Banking Union, along with the Single Supervisory Mechanism and Single Resolution Mechanism, helped create a more unified banking sector for the entire euro area.

The truth is that the Irish experience was a major motivator for many of these reforms. The new bank recovery and resolution regime was designed in part to address the problems Ireland faced.

The biggest problem was the fact that the costs of the banking crisis, including the protection of Irish banks' wholesale creditors, were largely borne by taxpayers. The new regime is meant to make banks safer. And, in the event of another crisis, it is designed to limit the risk that taxpayers will be asked to help bailout the banks.

But there is still so much more to do. We cannot stand in place, we must continue to be ambitious. We need to look ahead to what I describe as euro 2.0.

Looking Ahead — Euro 2.0

I believe there are three major areas where work is needed to enhance the euro area's resilience and secure its future.

Of course, progress will not be easy and it will take time to reach agreement on many thorny issues, but I want to outline each area briefly. I know these topics will be addressed in depth over the next two days.

First, the Banking Union should be completed with an adequate backstop for a Single Resolution Fund and a common deposit insurance scheme. This is important because ultimately, with the proper safeguards, it makes good economic sense to insure credit risks across member countries. This kind of insurance can help weaken the "sovereign-bank doom loop" that was at the heart of much of the crisis.

Second, the euro area needs truly integrated financial and capital markets that allow companies to raise financing across borders more easily and support investment. In the near-term, it is critical to ensure that regulatory and supervisory capacities are prepared for the influx of financial firms that will move to continental Europe — and Ireland — as a result of Brexit. Over the medium-term, there will need to be greater harmonization of national insolvency regimes and securities regulations. We can see some of the progress and potential in the European Venture Capital Regulation, which makes it easier for start-ups to raise venture capital financing from investors across the EU.

Third, the euro area can take steps to introduce greater fiscal risk-sharing while reducing underlying fiscal risks. During the last crisis, there was an overreliance on monetary policy. Simply put, the euro area should not repeat the mistakes of the past. Greater risk-sharing combined with larger national buffers would allow countries to avoid having to raise taxes and cut spending when the next downturn comes. The IMF recently introduced our own proposal for a central fiscal capacity, or as we described it, "a rainy-day fund." Others, including some in this room, have put forward different proposals for a euro area fiscal capacity as well. But no matter which proposal is eventually adopted, every country has a responsibility to comply with common fiscal rules and reduce public debt in places where it is too high.

All of these reforms can make a difference, but they are only part of the solution. More fiscal integration and true banking and capital markets unions will not address the structural weaknesses holding back growth in many countries. Policymakers must continue the difficult work of making their own economies more resilient and productive by implementing structural reforms.

This moment — with solid growth and steadily declining unemployment across the euro area — is the time to tackle the tough challenges. Recently I have been borrowing a line from a famous Irish-American, John Fitzgerald Kennedy, who once told his country, "The time to repair the roof is when the sun is shining." Right now, there are an increasing number of dark clouds on the horizon, so Kennedy's words should be taken to heart with a renewed sense of urgency.

Conclusion

There is no doubt that securing the euro area for the next twenty years will take patience, creative thinking, and increased cooperation. But this has always been the case.

Bringing countries together under difficult circumstances has been the mission of the euro area since its creation. And as I have said before, to be truly effective, the euro area cannot just be a union of convenience in calm waters. It needs to be a strong shield amidst storms.

That should be the objective going forward.

Now today I have quoted Edgeworth, Bono, and Kennedy, but let me close with a more traditional Irish poet.

It was Yeats who once said, "In dreams begins responsibility." In many ways, this is the story of the euro area. A dream, but one that requires each country taking on responsibility for that dream to be realized.

As I look around this room, I see so many talented scholars and policymakers. And it gives me confidence that you will each do your part to identify the existing problems and make progress toward finding solutions. We are proud to be your partners in this effort.

Thank you very much.

Finance

Recent Financial Market Developments in Asian EMEs

ASEAN+3 Macroeconomic Research Office (AMRO)
(Prepared by the Regional Surveillance Team at AMRO led by Ms Chuin Hwei Ng, and approved by AMRO Chief Economist Dr Hoe Ee Khor)

2017 In Retrospect

Asian EMEs put up a sterling growth performance in 2017, benefiting from robust world trade growth amid a backdrop of relatively ample global liquidity and subdued global market volatility. Asia's open, trade-dependent economies have been the largest beneficiaries of the global trade upcycle, reflecting the synchronized pick up in G3 demand (U.S., Eurozone and Japan), contributing to a more balanced growth between exports and domestic demand. Although economic activities have been picking up appreciably in the U.S. with labor market conditions gradually tightening, underlying inflation (measured by the core PCE inflation[1]) came in weaker-than-expected throughout most of 2017. The subdued inflation outlook prompted markets to price-in a more dovish outlook for Fed policy, rendering a weaker U.S. dollar performance. The lack of a major upside inflation surprise in the U.S. has helped to calm global markets, with volatility largely subdued and long term borrowing cost generally stable.[2] With still positive net liquidity injections by major global central banks (ECB and the BOJ), global financial conditions remain accommodative, helping to support continuing net capital inflows to Asian EMEs. Riding on the tailwinds from the robust export-led growth and an improving macroeconomic outlook, Asian EMEs saw a year of buoyant asset markets as well as exchange rate appreciation, ignoring the lingering geopolitical tensions.

In the ASEAN+3 region, economic growth continued to be robust, with real GDP growth in 2017 growing by a stellar 5.6 percent, surpassing earlier expectations. The sustained growth performance reflects the resilient domestic demand, with added impetus from exports (Figure 1). Private consumption, in particular, continue to anchor regional growth, underpinned by stable labor markets, continuing wage/earnings growth, and the easing of household debt in some economies. The stronger-than-expected growth performance in the region was in tandem with an improvement in the external position, with robust external demand and rising global commodity prices helping to lift exports and hence, support regional current accounts. In some regional economies, the better growth outturn reflects to some extent, expansionary macroeconomic policies. On the financial side, regional equity markets outperformed relative to other EME peers in 2017, while foreign capital inflows,

---

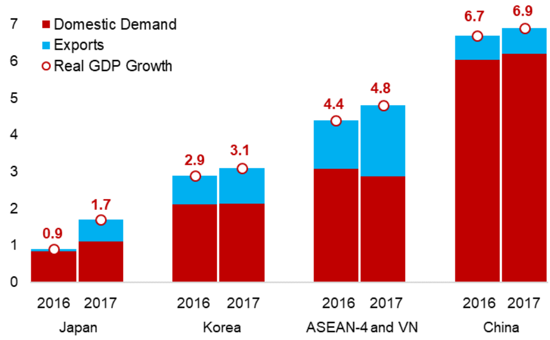
[1] The core personal consumption expenditure (PCE) inflation is the preferred measure by the U.S. Fed in gauging underlying price developments.

[2] Developments in long term borrowing costs are proxied by the 10-year U.S. Treasury yields, averaging 2 percent level in 2017.

particularly, in the debt capital markets continued to be large, with cumulative net debt inflows[3] into ASEAN-4 and Korea amounting close to USD250 billion from January 2013 to December 2017. This partly reflects the region's strong fundamentals and openness, which continue to attract foreign investors.

Figure 1. ASEAN+3 Growth Performance and Outlook

(a) Contributions to Growth (2016 vs. 2017), (% Pts)



(b) Growth Performance in 2017 and Outlook in 2018 (% yoy)

Real GDP Growth	2017	2018 e/
China	6.9	6.6
Japan (Fiscal Year)	1.8	1.3
Korea	3.1	2.9
ASEAN-4 and Vietnam	5.4	5.3
Brunei, Cambodia, Lao PDR & Myanmar	6.5	6.6
Hong Kong & Singapore	3.7	3.2
ASEAN+3	5.6	5.4

Note: ASEAN-4 refers to Malaysia, Thailand, Indonesia and the Philippines. Contributions to growth are estimated based on the import-adjusted method of national accounting.
Source: National Authorities, OECD, AMRO staff estimates

2018 – An Uneasy Global Backdrop

Unlike the generally smooth ride in 2017, concerns about escalating trade tensions and to some extent, rising inflation, particularly in the U.S., have sent global financial market volatility higher in H1 2018. Trade tensions began to heighten on 22 January 2018, when the U.S. announced global tariffs on washers and solar panels. Tensions escalated when the exemptions on U.S. tariffs on steel and aluminium imports from Canada, Mexico and the E.U. expired on 1 June 2018 without extension, attracting retaliatory tariffs from these countries on their U.S. imports. While the real sector impact is not immediately quantifiable, the mounting trade tensions between the U.S. and the rest of the world are already taking a toll on global markets alongside a sharp increase in volatility as investors fret over the outlook for consumer spending and corporate earnings. Exacerbating this volatility is the market jitters reflecting concerns about rising U.S. inflation, raising market expectations of

[3] Foreign capital inflows in the debt markets are mainly in sovereign debt instruments.

further Fed rate hikes beyond the Fed's forward guidance[4]. In late April 2018, the 10Y U.S. Treasury yields broke the 3 percent level for the first time since 2014, in a signal that market participants are pricing-in higher interest rates amid rising supply of U.S. Treasuries to meet spending needs. This is on the back of a robust U.S. economy, boosted by fiscal tax stimulus from the beginning of this year. Rising U.S. interest rates have also pulled up the U.S. dollar.

While Asian EMEs have benefited from foreign capital inflows, helping to ease the rebalancing from export-led to domestic-led demand growth, the region is susceptible to vulnerabilities from large capital flow reversal and the attendant volatility spikes, amplifying the risks to financial stability. Massive monetary policy stimulus by the U.S. and the Eurozone post-Global Financial Crisis in 2008/09 and the European Sovereign Debt Crisis in 2010, has contributed to an extended period of ultra low global interest rates amid unprecedented injection of global liquidity. Given the sluggish exports, the region shifted to domestic and intra-regional demand for sources of growth. The inflows of foreign capital facilitated the rebalancing process by keeping global monetary and financial conditions very easy, allowing the regional central banks to maintain accommodative monetary conditions. . To manage the financial stability risks while reaping the benefits from capital inflows, policymakers in the region have been among the most active in the world in deploying macroprudential measures. However, going into 2018, in an environment where global interest rates are rising in earnest (with the risk of market expectations being frontloaded), the risk of capital flow reversal has increased in recent period. This is exacerbated by the possibility of withdrawal of quantitative easing by the ECB in 2019. The tightening global condition and risk aversion towards emerging markets could potentially complicate policy management for regional economies especially those which are in the late business cycle with emerging signs of inflation and external imbalance, or where domestic indebtedness is relatively high or the external position is relatively weak.

A. Equity and Bond Market Developments in Asian EMEs

After a period of relative calm, global stock markets including in Asian EMEs[5], have tumbled since 15 February 2018, with the risk-on sentiment triggered not only by uncertainties posed by trade protectionist threats, but also driven by the tightening of global financial conditions and a strengthening U.S. dollar. Benchmark stock markets in Asian EMEs have been trending lower since 15 February 2018 – the day before the U.S. Commerce Department proposed tariffs on steel and

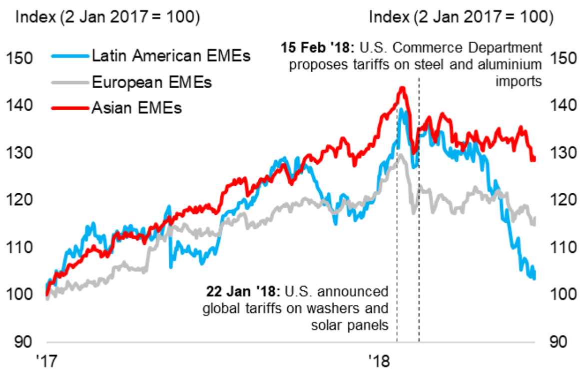
---

[4] An escalation of global trade tensions continues to be a risk weighing on global and regional growth performance, as highlighted in the 2018 AREO by AMRO. The near term risks could be mutually reinforcing, reflecting the interaction of one or more risk events materializing. For instance, the escalation of global trade tensions triggered by the imposition of tariffs by the U.S. could interact with the faster-than-expected tightening in global financial conditions, and/or escalation of geopolitical risks in the region.

[5] Based on MSCI classification, where Asian EMEs refer to China, Korea, Malaysia, Thailand, Indonesia, the Philippines, Taiwan Province of China, India, Pakistan, Hong Kong China, and Singapore.

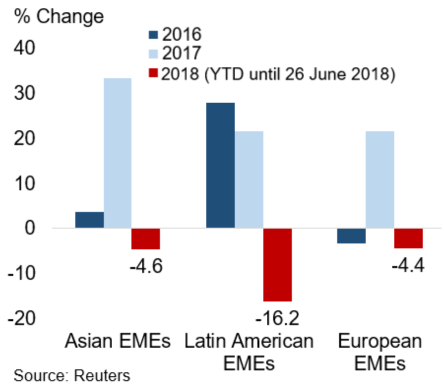
aluminium, with the MSCI Asia ex-Japan stock price index shedding close to 5 percent (YTD until 22 June 2018). However, Asian EMEs fared much better in comparison with Latin American EMEs, which saw close to 22 percent drop in the stock market index (Figure 2, 3), led by a selloff in Argentinian equity market.[6]

Figure 2. MSCI Equity Market Indices (Global EMEs)



Source: Reuters

Figure 3. MSCI Equity Market Performance (Asian EMEs vis-à-vis Other EM Regions)



Source: Reuters

While markets continue to discriminate between Asian EMEs and other EMEs outside the region based on economic fundamentals, country-specific considerations have also warranted some degree of differentiation between EMEs in ASEAN+3. Since the Fed taper tantrum in May 2013, markets have become more discerning, and able to discriminate between EMEs based on their economic fundamentals. So far, the turmoil in emerging markets is concentrated in specific EM regions (such as Argentina in Latin American EMEs, and Turkey in European EMEs), and has not led to general contagion and capital flights across global EMEs. However, EMEs within the ASEAN+3 region do demonstrate some degree of differentiation, reflecting specific country risk factors and vulnerabilities. For instance, the Philippine stock price index has shed close to 20 percent since 15 February 2018, as the selloff by foreign investors reflects overheating risks and concerns over the current account outlook, given the sustained depreciation of the Philippine peso. China's stock market in contrast, was weighed down by growing concerns over trade and investment tension with the U.S. [7], with the benchmark Shanghai Composite Index plunging to its lowest level in two years (Figure 4).

In contrast to equities, bond markets in Asian EMEs remain resilient, with continuing foreign capital inflows. Notwithstanding rising U.S. Treasury yields pulling up borrowing costs in ASEAN+3 EMEs (Korea and ASEAN-5[8]), foreign capital

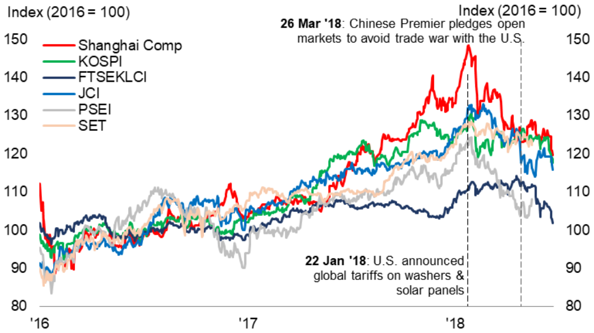
[6] Argentina has been identified by markets as being more vulnerable to rising borrowing cost and appreciating U.S. dollar, given the large twin deficits (current account and fiscal deficits).

[7] The U.S. House of Representative passed a bill on 25 June 2018, to allow the Committee on Foreign Investment in the United States (CFIUS) to expand its reviews to minority stakes in U.S. companies. It also puts a focus on investments that may expose sensitive data about Americans to foreign governments or reveal information about critical infrastructure, like the telecommunications network.

[8] ASEAN-5 refers to Malaysia, Thailand, Indonesia, the Philippines and Vietnam.

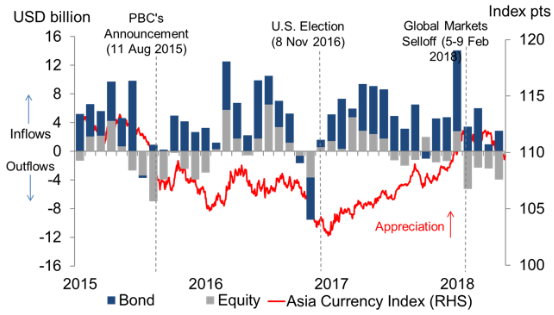
flows have remained positive, albeit at a smaller magnitude, as global financial conditions have not tightened excessively (Figure 5). This also suggests that despite the rising risk aversion, the region remains attractive to foreign investors given the sustained macroeconomic outlook.

Figure 4. Equity Market Performance (Selected ASEAN+3 Economies)



Source: Haver

Figure 5. Foreign Net Capital Flows in ASEAN+3 EMEs (Korea and ASEAN-5)



Source: National Authorities, Bloomberg

B. Foreign Exchange (FX) Developments in Asian EMEs

On the exchange rate front, the strong appreciation pressure of Asian currencies in 2017 have begun to unwind, with rising FX volatility in recent period. A maturing U.S. economy, and the potential return of the Phillips curve, have fuelled renewed focus on rising U.S. rates and sustained U.S. dollar strength given that the Fed has signalled the possibility of additional rate hikes this year. After the impressive gains in 2017[9], Asian currencies (against the U.S. dollar) are set on a depreciating and more volatile path in 2018, as foreign investors trimmed exposure to riskier assets given the less friendly global environment. Higher oil prices and rising U.S. Treasury yields continue to put pressure on the Indonesian rupiah and Philippine peso (and to some extent, the Indian rupee), as these economies are net oil importers, and suffer from twin deficits of fiscal budget and current account (Figure 7). The Korean won has weakened, reflecting the trade tension between China and the U.S., considering that Korea has strong trade linkages, as well as a large auto and technology sector. However, in comparison to other EME currencies outside the region (particularly the Argentine peso and the Turkish lira, Asian currencies continue to rank favorably (Figure 8).

[9] The Bloomberg JP Morgan Asia Dollar Index, which measures 10 of the region's currencies against the greenback, climbed 6.7 percent in 2017, the biggest annual advance in data that started in 1994.

Figure 7. FX Performance (Against USD) (Selected ASEAN+3 EMEs)

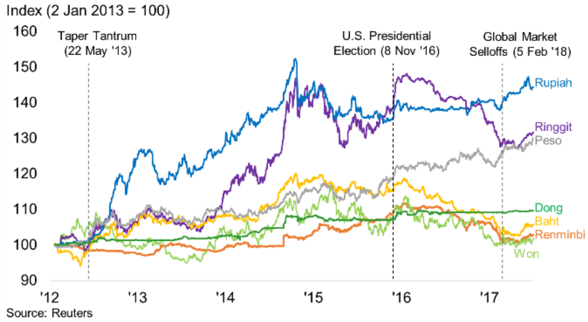
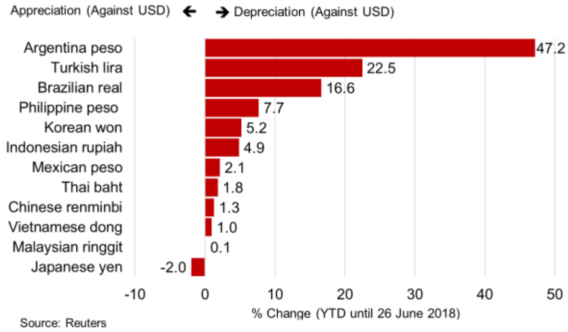


Figure 8. FX Performance (Against USD) (Comparison with other EMEs)



C. Putting It All Together – Short Term Outlook and Policy Settings in Asian EMEs

The ongoing trade battles between U.S. and its major trading partners, with additional pressure from Fed policy and renewed U.S. dollar strength, are weighing on the short term macroeconomic outlook of Asian EMEs, while also posing significant policy challenges. An escalation of trade tensions will weigh on global trade and growth (including via supply-chain spillovers), which could be amplified by retaliatory measures. Preliminary estimates by AMRO suggest that the impact on ASEAN+3 GDP growth from a limited trade war scenario[10] would be significantly negative. The impact on the region's economies would be transmitted mainly through the export channel given its openness to trade and the extensive trade linkages through the region's supply chains. Likewise, the tariffs on steel and aluminium imports by the U.S. are also expected to affect a broad range of countries, including in Asia. The interactions between trade tensions and Fed policy could prompt a much more cautious investor stance, weighing on asset markets and capital flows into Asian EMEs. Throughout most of H1 2018 (and possibly in the period ahead), portfolio capital flows to Asian EMEs, as well as globally, have become considerably more volatile, posing significant policy challenges at a time when some Asian EMEs are facing overheating risks amid strong external headwinds.

Policymakers should be more vigilant and continue to build policy space to prepare for future risks. The policy mix of fiscal, monetary and macroprudential policies would depend on where each economy is currently in its business and credit cycle. Considering the benign domestic inflation, regional economies have largely kept monetary policy accommodative. While policy interest rates have been adjusted upwards and normalised in some regional economies, the monetary policy stance for the region still remains accommodative. While some Asian central banks have been able to resist tightening for now, the leeway to keep policy rates accommodative is narrowing, as global cyclical recovery firms up and inflation continue to edge higher. Regional economies that are growing robustly above potential and where output gaps are positive and inflationary pressures are building, may consider signalling a tighter monetary policy bias. Regional economies that are in late business cycles could consider a tightening monetary policy bias, in view rising

---

10 See Box B – The Winds of (a Trade) War, AREO 2018.

inflationary pressure or widening external imbalance. Even though most regional economies are in early- to mid-business cycle, given the build-up of credit over the past years, the financial stability objective should be prioritized in the near future over economic growth, with monetary policy on a tightening bias. For some economies, monetary policy space may be constrained, given the impending tightening of global financial conditions, with possible shocks if global financial conditions were to tighten faster-than-expected. Where pockets of vulnerability have built up in sectors such as the property markets, maintaining or tightening macroprudential measures can help safeguard financial stability, and most regional economies have already tightened macroprudential measures proactively.

Policy will have to be calibrated taking into account constraints from domestic and external vulnerabilities such as debt, and degree of reliance on external financing. Economies in which financial vulnerabilities have built up, with high leverage or external debt, will face the sharpest trade-off in maintaining an accommodative monetary policy to support growth while maintaining financial stability, especially as global financial conditions tighten. Economies relying on capital markets to finance both the current account and the fiscal deficits ("twin deficits") may face financing constraints when trying to maintain an easy monetary policy or an expansionary fiscal policy. However, the scope for more active use of fiscal policy is subject to available fiscal space, which has generally narrowed. Fiscal expenditure should be reprioritised to support structural reform to build future economic capacity.

A trade war means back to the beginning

（By Amitendu Palit, from China Daily website）

A trade war is increasingly becoming a reality. Even after the United States announced it would raise tariffs on its steel and aluminum imports in March this year, there were hopes that negotiations might help stall the additional tariffs. Unfortunately, such hopes didn't materialize. US trade actions have begun evoking retaliatory actions from various economies. And a full-blown trade war now seems all but imminent.

Countries are free to choose the way they treat their imports. The World Trade Organization has pursued a multilateral program of phased tariff liberalization by urging its members to treat each other as MFNs (most favored nations) and imposing same tariffs on identical imports from all members.

However, the WTO members have had the scope of "binding" their tariffs. In other words, all WTO members are allowed to raise their tariffs up to a ceiling that they have committed to. They are also allowed to react to sudden surges in imports by raising tariffs as "safeguards". Despite all these protections, it is not clear why the US decided to unilaterally raise tariffs on steel and aluminum imports. Any concerns by the US in this regard could well have been addressed within the WTO's rules. Thus the US actions have set off a dangerous precedent that has the potential of undermining the fundamentals of modern trade.

The most worrying part of the US tariffs is the equation of economic security to national security. Section 232 investigations under the Trade Expansion Act of 1962 against steel and aluminum imports, and further on automobiles, parts and components, suggest these imports are threatening US national security. It is not clear how the import of foreign cars from Mexico and other countries—assembled by US manufacturers in those locations—is hurting US national interests. The fact is, US producers are benefiting as are the consumers using those cars.

The logic extends to a large number of other imports that US businesses are using at various points of the supply chain and US consumers are benefiting from cheap imports. The logic of national security, arguably, is connected to the damage imports inflict on domestic industries and the "dependence" of the US economy on critical imports. Whether or not this is justified is a different question. But the problem is, if other countries decide to follow the US example and start raising tariffs on national security grounds, global trade will drop to a trickle.

That the US has not bothered to consult the WTO before taking such trade actions has not stopped other countries from complaining against the US at the WTO. For the US, though, unfavorable decisions at the WTO might not mean much. The Donald Trump administration's actions have made it clear that the US considers trade as a bilateral relation and would address it accordingly. Indeed, the sanctity of the WTO has never been as seriously challenged as it is by the US now. Again, this sets a precedent for a dangerous trend. If more and more countries follow the US and begin sidestepping the WTO, multilateral trade rules would become irrelevant.

The US does not appear to be in a mood to change its position. As it keeps slapping more and more tariffs on a range of imports from China and various other countries, business relocation is an obvious outcome. Already, US companies like Harley-Davidson have announced or are planning to move part of their operations to other countries to circumvent the retaliatory tariffs imposed by the European Union on US imports, including cars and motorbikes. Such possibilities are manifold as businesses try to work out the impact of multiple tariffs that are coming up on all sides. Within a few years, geographical decentralization of assembling operations in many industries might be very different from what they are now.

From an overall perspective, the trade disputes, now confined to tariffs, between the US and the rest of the world might become wider by including non-tariff barriers and spreading to other countries. This most unfortunate outcome might mean the end of the work that has been done for more than three decades in freeing up trade by removing barriers.

More important, it would turn around history to a point where work on trade would have to begin from where it began many years ago.

Technology & Innovation

Endogenous Innovation: Food for Thought

"*Self-reliance is the foundation for the Chinese nation to stand firmly in the world while independent innovation is the only way for us to climb the peak of the world's science and technology*."

President Xi Jinping made the statement at the opening of the 19th Meeting of the Academicians of the Chinese Academy of Sciences and the 14th Meeting of the Academicians of the Chinese Academy of Engineering

China has made remarkable gains in industrialisation and development due to its reform and opening-up policy in 1978. In particular, it is since the 18th National Congress of the Communist Party of China (CPC) that China has committed to continuing to make progress in science and technology and endeavour to become the world's innovation highland if it wants to achieve prosperity and rejuvenation.

In recent years, major progress has been made in science and technology undertakings such as manned space flight, manned deep-sea submersible operation, super computer, earth observation satellite, Bei-Dou Navigation Satellite System, large passenger aircraft, and what's more, artificial intelligence (AI), thus serving the requirements of national strategies. It also can be argued that China is in a leading position in some areas affecting people's livelihoods and social progress in terms of high-speed rail, e-commerce, mobile payments and the shared economy.

Driven by innovation, China's economy is undergoing a series of profound changes, which have resulted in fundamental change in the economic growth model. Previously, investment can be a driving force to contribute to China's economic growth. However, China's economy now has been casting aside those modes characterized as high input, high consumption and heavy pollution. It is mainly driven by innovation rather than investment since the progress with science and technology in recent years. In the past five years, the contribution rate of technological progress augmented from approximately 52.2 percent to 57.5 percent, and China's innovation capacity was ranked No 17 worldwide up from No 20 in 2012. If using the median of the yardsticks, Chinese technology industry is 42% as powerful as America's while the figure was just 15% in 2012. When it comes to e-commerce and the internet, Chinese firms are about 53% as big as America's, measured by market value. Notably, in the area of AI, China has piles of filed data as well as technology ventures in AI specialisms. China is on track towards innovative, green, quality, and sustainable development.

Innovation has promoted the overall transformation and optimization of economic structure, thus injecting new impetus into economic growth. The primary and secondary industries contribution to economic growth is decreasing while the tertiary industry (i.e., service industries) is gaining an increasingly larger portion. These changes could not have been brought about without innovation. It is noted that the growth of emerging service industries has propelled industrial restructuring. Particularly, new consumption models are emerged in the realm of communications, education, culture, entertainment, and healthcare, since new technologies such as e-commerce, mobile payments, the shared economy, big data and cloud computing have been utilised to great effect. According to data from China's National Bureau of Statistics, strategic emerging service industries have increased by 17.3 percent, much higher than the growth rate of 6.4 percent for traditional industries.

Despite China has seen remarkable technological achievements in recent years, the nation's overall capacity for innovation falls short of the standards of other science and technology superpowers. Compared with developed economies, China faces challenges in the form of poor capability for basic research and radical innovation, which should be resolved by accelerating the implementation of the innovation-driven national development strategy.

More lately China has pointed to the need for a shift in the growth trajectory with stronger emphasis on 'endogenous innovation' (*Zi-Zhu-Chuang-Xin*), so as to achieve technological independence and sustainable development in the long term. In particular, there is increasing attention being paid to the rise of Chinese firms and how the improvement of innovation capability has contributed to their competitive advantage and firm performance. Hence, we attempts to investigate the intricate process of achieving endogenous innovation at the firm level in the context of Chinese emerging market.

Rapid growth and remarkable transformation of Chinese firms in recent years have made them more competitive globally against their rivals at home and abroad. Due to the lack of competitive advantage, it seems that Chinese firms are biasedly considered as 'supporting actors' on the world stage. Chinese firms are eager to acquire critical assets (e. g. technology, R&D facilities, human capitals, brands, managerial expertise, and natural resource) by using external connections rather than generating internally. They differ sharply from advanced market multinational enterprises (MNEs), which generally leverage and exploit their ownership-specific competitive advantages in foreign countries. Nevertheless, it should be noted that many Chinese MNEs invested in south-east Asia to absorb their excess production capacity for leveraging their cost-effective manufacturing capabilities. Furthermore, China's latest high-speed railway technology, which designs and develops independently, has established a great worldwide reputation, thus standing at the forefront of the global industry. This view gives us a starting point for discussion about what exactly happened in Chinese firms. In this paper, we propose that a Chinese firm pursues a dynamic innovation strategy to boost its organizational knowledge stock, that is, simultaneous implementation of internal R&D efforts and external networks, thus achieving the aim of endogenous innovation. It should be pointed out that endogenous innovation does not mean firms adopting closed-door policy to boost their innovative capacity. Given that institutions in transitional and emerging economies will significantly shape firm strategy and performance, Chinese companies would have to be more cautious to make this strategic decision. We also add institutional advocacy as a third lens to help understand how Chinese firms build up their independent innovative capabilities. Thus, this article posits that internal R&D efforts, external networks and institutional advocacy are collectively to affect managers in Chinese firms to initiate and utilize endogenous innovation.

Internal R&D Efforts

It is widely recognized that in-house R&D capacity is positively related to firm innovation. The internal R&D level represents a firm's ability to develop and improve its new products through the adaptation and application of the external technology stock. It also embraces the ability to internalize technology created by others and modify it to fit the firm's specific applications, processes and routines. Internal R&D capabilities allow firms to scan and screen the external technology market and increase the knowledge base to integrate external technology with its own innovative projects. In general, firms will devote more R&D resource when they are sure of the linkage between more R&D input and more R&D outputs. Here, we focus on two dimensions of firm-level R&D efforts: R&D personnel and funding. Within this context, we assume that a firm is more likely to explore more new knowledge, if it has sufficient R&D personnel. With talented technical employees, firms from emerging markets can quickly identify what new knowledge their firm needs and effectively absorb the new knowledge from outside. In addition, conducting R&D is the money-consuming activity for a firm. Without sufficient financial subsidizations, it is difficult for firms to engage in R&D activities. From this viewpoint, Chinese firms may need to accumulate R&D personnel and funding through market success.

External Networks

For Chinese firms, networks that lead to an increasing interaction between various actors represent an organizational response to the complexity of technology development. Many scholars and managers have stressed the importance of establishing inter-organizational collaborations with external partners, and have argued that boundary spanning activities are essential to successful knowledge flows, which subsequently affect a firm's innovation success. In this paper, we focus on collaborations with research organizations (e.g. universities, colleges, technical institutes and research institutions) as well as foreign MNCs in China. Firstly, innovative cooperation between firms and research organizations are mainly of informal communication of skills and knowledge, technology trade or technology transfer, formal R&D collaboration (e.g., R&D alliance, R&D outsourcing), joint R&D (e.g., via agreements), training of innovative personnel, and provision of skilled workforce and graduates with knowledge and skills and so on. Generally, such collaboration in these networks is said to decrease transaction costs, correct market failures and decrease the risks of the interacting partners resulting in increased productivity. Regarding Chinese firms, it is importantly that they connect research organizations to increase their in-house innovation level. Next, it also should be noted that business ties with foreign MNC partners can be seen as an important means for Chinese firms overcome their deficiencies in knowledge about global market. Since foreign MNC partners possess considerable advanced technology and management skills that have diverse product and process knowledge, cooperation with MNC partners provides potential opportunities for Chinese firms to increase their knowledge about international standards and market rules.

Institutional Advocacy

Government support makes a significant impact on the process of technological learning through both industrial, trade, finance, and technology policies, which affect a firm's interactions with the international community by regulating the inflow of foreign technology. They affect the firm's interactions with the domestic community by influencing the availability and efficacy of local supporting institutions and the quality of educational institutions. And they affect the firms' interaction with the market environment by shaping industrial organizations. These policies thus affect directly or indirectly the process of the technology development of the firm. For instance, during the transitioning period, despite the development of a market system, Chinese government still remains its involvement in business at firm level as in planned economy. Especially to state owned enterprises (SOEs), Chinese government authorities are more interested in guiding their future development. They are willing to provide financial support to these domestic larger firms or "national champions" for their internationalization and protection from domestic market, as well as prop them up quickly to become giants with global competitiveness. This also accords with Chinese economy's long-term development strategy.

Legitimacy, as another institutional factor, is a paramount issue for a company to exist in the market. FDI legitimization captures the extent to which foreign invests is well accepted by a variety of constituencies in the host country. Gaining legitimacy is important for foreign firms because they generally suffer from the liability of foreignness. It is particularly important for Chinese firms to go abroad nowadays. For examples, some Chinese MNEs failed to launch overseas acquisitions in recent years due to the institutional barriers. In this regard, Chinese firms should consider which outward FDI activities can help them build strong legitimization in the host countries. Back in domestic firms, gaining legitimization from government can be seen as an important instrument to obtain both R&D resources, hence strengthening innovative capabilities.

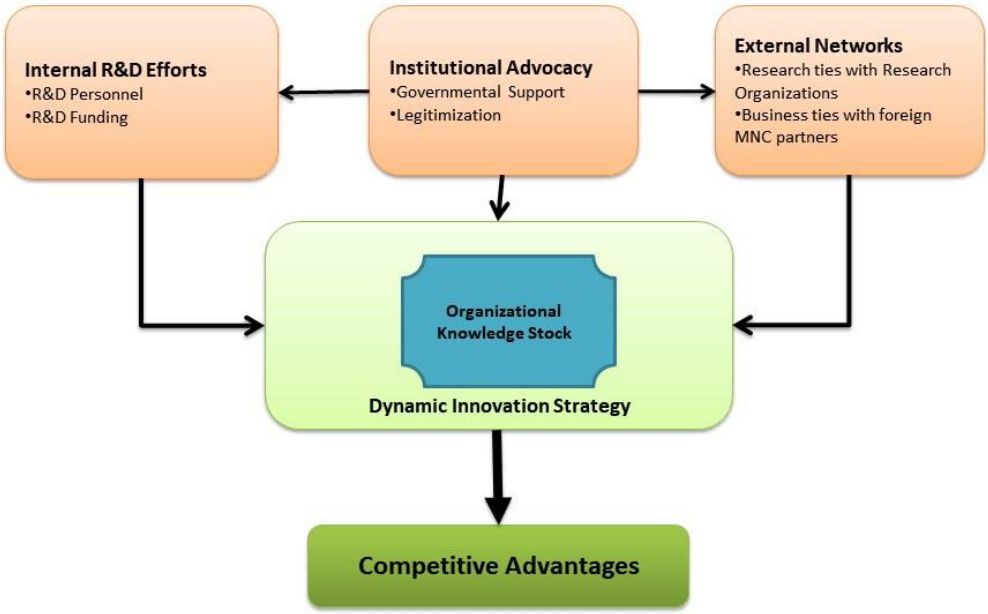


Figure 1

Conclusion

In this article, we propose a framework about how Chinese firms nurture their endogenous innovative capabilities so that they can generate competitive advantage (see Figure 1). Accordingly, this paper stands a new angle to look insight into Chinese firms engaging in varying innovation activities for compensating their competitive disadvantages. Due to competitive and turbulent environment, Chinese firms would have to simultaneously implement both external and internal approaches to obtain critical strategic assets. Unlike MNEs from developed or newly industrialized economies, Chinese firms may need to redouble internal R&D efforts and strengthen the connections with both research organizations and foreign MNC partners in their home country. Finally, we emphasized that the role of institution can be very important for Chinese firms to overcome their internal and external deficiencies. To this end, we hope that more future analyses can derive more insights and inspirations to independent innovation with Chinese characteristics, therefore building China into a great power in science and technology