LINK 2018 Report

Table of Contents

Agenda of the meeting

WEDNESDAY, SEPTEMBER 5, 2018
09:30-9:50	Opening
	Daniel Titelman, UN/ECLAC
	Peter Pauly, University of Toronto

9:50-11:45	World Economic Outlook
	Chair: Peter Pauly
	LINK Global Economic Outlook
	Dawn Holland, UN/DESA, New York
	IMF World Economic Outlook
	Mico Mrkaic, IMF, Washington, D.C
	World Bank Global Economic Prospects
	Dana Vorisek, World Bank, Washington, D.C.
	Open discussion on world economy

11:45-12:00	Break
12:00-13:00	Further discussion on global economy
	Chair: Esteban Perez
	The long view: scenarios to 2060
	David Turner, OECD, Paris
	Scrapping or saving the Paris Agreement: The decisive role of China, the United States and the European Union
	Stefan Schleicher, University of Graz

WEDNESDAY, SEPTEMBER 5, 2018	
14:30-16:00	Commodity Prices and the Global Economy
	Chair: Yasuhisa Yamamoto
	Oil price regimes: why do prices stray from market fundamentals?
	Robert Kaufmann, Boston University
	Agricultural commodities
	Willi Meyers, University of Missouri
	Non-oil commodities and commodity dependence
	Janvier Nkurunziza, UNCTAD, Geneva
	Open discussion on commodities and commodity dependence
16:00-16:30	Break
16:30-17:30	Sustainable development and multilateralism
	Chair: Franjo Stiblar
	Stylized facts and determinants of investment in Latin America
	Esteban Perez, UN/ECLAC, Santiago
	Global labour markets
	Stefan Kuehn, ILO, Geneva

THURSDAY, SEPTEMBER 6, 2018	
09:30-11:00	Regional Outlooks
	Chair: Charlotte du Toit
	Latin America and the Caribbean
	Cecilia Vera, UN/ECLAC, Santiago
	Africa
	Khaled Hussein, UN/ECA, Addis Ababa
	Challenges in developed economies
	David Turner, OECD, Paris
	Open discussion following each presentation
11:00-11:30	Break
11:30-13:00	Tariffs, policy and trade dynamics
	Chair: Ray Barrell
	LAC trade dynamics and the global trade tensions
	Keiji Inoue, UN/ECLAC, Santiago
	Growth, Aging, and the Future of East Asian Trade Imbalances
	Byron Gangnes, University of Hawaii
	Productive capacities and export dynamics
	Sebastian Vergara, UN/DESA, New York
	Open discussion on global trade tensions

14:30-16:00	Monetary policy and global spillovers - Special session sponsored by the Central Bank of Chile

Chair: Joaquín Vial

Channels of US Monetary Policy Spillovers to International Bond Markets

Sebastian Claro, PUC-Chile, former Vice-Governor of the Central Bank of Chile, co-authored with Elias Albagli, Luis Ceballos and Damian Romero

The International Transmission of Monetary Policy

Robert Hills, Bank of England, United Kingdom, co-authored with Claudia Buch, Matthieu Bussière and Linda Goldberg

Global Spillover Effects of US Uncertainty

Saroj Bhattarai, UT-Austin, co-authored with Arpita Chaterjee and Woong Yong Park

16:30-17:30	Financial crises

Chair: Ingo Pitterle

Macroeconomics and Financial Crises

Ray Barrell, Centre for Macroeconomics, LSE and Brunel University, co-authored with Dilruba Karim

Booms, Crises and Recoveries: A new paradigm of the business cycle and its policy implications

Sweta Saxena, UN/ESCAP, Bangkok, co-authored with Valerie Cerra

FRIDAY, SEPTEMBER 7, 2018	
09:30-11:30	Regional outlooks
	Chair: Aleksander Welfe

Western Asia	
	Seung Jin Baek, UN/ESCWA, Beirut
East Asia and South Asia	
	Sweta Saxena, UN/ESCAP, Bangkok
Economies in transition	
	Kirill Mikhaylenko, Center for Macroeconomic Analysis and Short-Term Forecasting, Moscow (tbc)
Open discussion following each presentation	

11:30-11:45	Break
11:45-13:15	Roundtable discussion: The future of the Project LINK network
	Chair: Peter Pauly
13:30	Close

Day 1 - Wednesday, 5 September 2018

Session 09:50 - 11:45 - World Economic Outlook

WEDNESDAY, SEPTEMBER 5, 2018	
9:50-11:45	World Economic Outlook
	LINK Global Economic Outlook
	Dawn Holland, UN/DESA, New York

Presentation link - click

The opening presentation on the world economic outlook introduced the LINK Global Economic Outlook report – the UN's view on prospects for the world economy, informed by country experts from the Project LINK network. In summary, the presentation stressed that while short-term prospects for the world economy remain steady, risks are continuing to build, amid more moderate world trade growth and tightening global financial conditions. The risks are centred around the escalation of global trade tensions, the uncertainty over the impact of monetary policy adjustment in developed economies, and an undercurrent of geopolitical tensions. While growth rates in many developed economies are above their long-run potential, many commodity-exporting economies continue to be hampered by the legacy of higher debt and macroeconomic imbalances revealed during the commodity price collapse of 2014-2015.

As global financial market volatility rises, many developing countries are exposed to risk aversion, contagion and associated risks, especially countries with high levels of debt, macroeconomic imbalances, fragile growth or facing political uncertainty or geopolitical tensions. High levels of inequality prevent the gains from growth from being widely shared within many countries, and pose a severe obstacle to poverty reduction. Finally, the presentation highlighted the tensions between economic growth and environmental targets, noting that more and more industries are starting to price in the costs of climate change as part of their production forecasts and assessment of risks.

IMF World Economic Outlook

Mico Mrkaic, IMF, Washington, D.C

Presentation link - click

IMF underlined strong 3.9% growth of the global economy in 2018 (PPPs; see slides), mentioning that trade and industrial production peaked in H2-2017. Growth has become less synchronised between advanced and emerging economies, while same time economic risks – especially trade – keep mounting. Headline inflation has risen due to higher oil prices, which might be trimmed by increasing oil production (producers agreed in June 2018 for additional 1 million bpd). Furthermore, US core inflation pushed up through tightening of the labour market, while in EMs through currency depreciation.

The global growth projections remain in line with April 2018 WEO forecasts, nevertheless, there are shifts in the underlying country data. Advanced economies are expected to grow at 2.2% in 2018-2019, while emerging economies should reach 3.9% growth rate in the same period. Medium term per capita growth remains below past averages in many economies.

Federal Reserve is expected to continue the tightening, with two and three additional hikes expected in 2018, and 2019, respectively (as of 5 September 2018). This has been followed by emerging markets' tightening. Long-term yields and spreads are on the rise. US dollar has continued to appreciate, while some EM market currencies, especially in countries with large macro-imbalances have sharply depreciated (Argentina, Turkey). Following the above shifts, capital flows to EMs have weakened in 2Q-2018. Non-resident sales of portfolio debt securities have been on rise.

Growth projections: Advanced economies
(percent change from a year earlier)

	World	Advanced Economies	U.S.	U.K.	Japan	Euro Area	Germany	Canada	Other Advanced Economies
2017	3.7	2.4	2.3	1.7	1.7	2.4	2.5	3.0	3.0
2018	3.9	2.2	2.9	1.4	1.0	2.2	2.2	2.1	2.8
Revision from Apr. 2018	0.0	−0.1	0.0	−0.2	−0.2	−0.2	−0.3	0.0	0.1
2019	3.9	2.2	2.7	1.5	0.9	1.9	2.1	2.0	2.7
Revision from Apr. 2018	0.0	0.0	0.0	0.0	0.0	−0.1	0.1	0.0	0.1

Sources: IMF, *World Economic Outlook* April 2018; and IMF, *World Economic Outlook July* 2018 Update.

13

Growth projections: Emerging markets and LIDCs
(percent change from a year earlier)

	World	Emerging Market and Developing Economies	China	India	Brazil	Russia	Low Income Developing Countries
2017	3.7	4.7	6.9	6.7	1.0	1.5	4.7
2018	3.9	4.9	6.6	7.3	1.8	1.7	5.0
Revision from Apr. 2017	0.0	0.0	0.0	−0.1	−0.5	0.0	0.0
2019	3.9	5.1	6.4	7.5	2.5	1.5	5.3
Revision from Apr. 2017	0.0	0.0	0.0	−0.3	0.0	0.0	0.0

Sources: IMF, *World Economic Outlook* April 2018; and IMF, *World Economic Outlook* October 2018 Update.

14

World Bank Global Economic Prospects

Dana Vorisek, World Bank, Washington, D.C.

Presentation link - click

In 2018, the number of countries with decreasing or unchanged GDP growth has risen comparing to 2017. Advanced economies are forecast to slow down in the coming years until 2020, in contrast to Emerging and Developing Economies (EMDEs) which should record a minor acceleration. Growth seems to approach potential among EMDEs, while the growth among advanced economies has already overshot. In both advanced economies and EMDEs, as well as on average globally, growth remains below long-time average of 1998-2017. Demographic changes will have an increasing impact on GDP aggregate as working-age population keeps declining.

Monetary policies are expected to continue tightening among the advanced economies, with the sharpest rise expected from USA, followed by Euro Area from 2020, and even later by Japan. Federal Reserve balance sheet will slightly decline in 2018 and beyond, in contrast to continued increase in Euro Area and Japan.

Further tightening of monetary policies, escalation of trade protectionism, as well as ever persistent geopolitical tensions pose main risks to the outlook. Trade war is expected to have the strongest impact on EMDEs. As a consequence of US monetary tightening, EMDEs' currencies experienced sharp depreciations, amid stopped net portfolio flows, and rising bond yields. The above factors decrease the sustainability of large stocks of debt in EMDEs posing a serious risk to the outlook.

Session 12:00 - 13:00 - Further discussion on global economy

WEDNESDAY, SEPTEMBER 5, 2018	
12:00-13:00	Further discussion on global economy
	The long view: scenarios to 2060

David Turner, OECD, Paris

Presentation link - click

Mr. David Turner presented a model which allows constructing scenarios for the world economy (46 countries) until the year 2060. It is composed of a potential output production function with several policy channels which uses OECD projections to 2019 and assumes output gaps close in 4-5 years. To create a reference point, Mr. Turner first explained the baseline scenario (with no reforms).

The main takeaway is a build up of fiscal pressures mainly due to population ageing and increased health and pension liabilities. The median OECD government would have to increase primary revenues by 6.5% of potential GDP by 2060 to stabilise public debt ratios.

Mr. Turner then described some scenarios including reforms. In one scenario, if BRIICS improved governance and educational attainment to average OECD levels by 2060, real GDP per capita would be 30% to 50% higher among the group. Other scenarios demonstrated how labour market reforms (such as tying future increases in pensionable ages to life expectancy) can encourage higher employment rates and longer working lives, thus offsetting the growth drag caused by population ageing, especially in OECD countries, and how combining this with health cost containment could reduce the projected increases in fiscal pressure by about half.

Potential uses of this model include aiding country specialists develop policy packages. Possible improvements include accounting for the level of taxation in the country (Laffer curve) and links to the environment. In the discussion that followed, participants questioned model assumptions (e.g. impact of automation on jobs and total factor productivity growth), results for non-OECD countries and the role of financial crises in the model.

| 12:00-13:00 | Further discussion on global economy |

> Scrapping or saving the Paris Agreement: The decisive role of China, the United States and the European Union

Stefan Schleicher, University of Graz

Presentation link - click

Mr. Schleicher began by presenting the motivation to consider climate's effects on the global economy. He explained it is an often overlooked subject though it is the source of important impacts: direct output loss from damages and positive impacts from reconstruction efforts as well as infrastructure adaptation for more resiliency. Brief description of the Paris Agreement with an overview of the problem was provided. Mr. Schleicher explained that the success of the Agreement was largely based on the support from both US and China. Thus, the withdrawal of the US puts it in jeopardy.

The Paris Agreement in essence is composed of a temperature target and voluntary national pledges to help achieve the target collectively. It implies a very radical reduction of GHGs. Currently, more than half of emissions stem from the US, China and EU. Adding Russia, India and Japan, this group is responsible for two-thirds of emissions. These countries are far from the emissions cuts necessary to achieve the Agreement target, though their nationally determined commitments would bring them closer to it.

Analyzing the problem from a modelling perspective, one can explain emissions growth as being due to GDP growth, energy intensity growth and emissions intensity growth. China's rise in emissions, for instance, was shown to be mostly due to growth of GDP. It becomes important then to find ways to decrease energy and emissions intensity.

Mr. Schleicher provided thus a useful overview of what to do to move towards a low-carbon path, concluding by warning that this path requires most of all political commitment. Discussing this presentation, participants wondered about the overall effect on GDP from environmental costs, the effects of higher temperatures on labour productivity and migration flows, and what gains can be made from non-energy sectors such as agriculture and forestry.

WEDNESDAY, SEPTEMBER 5, 2018

14:30-16:00	Commodity Prices and the Global Economy
	Oil price regimes: why do prices stray from market fundamentals?

Robert Kaufmann, Boston University

Presentation link – click

Mr. Kaufmann's presentation focused on the issue of recent oil price forecasting with a proposal of the new methodology to improve the performance of a forecasting model. He pointed out one of the reasons that caused a significant underperformance of forecasting models was the deviation of price dynamics from market fundamentals. He also pointed out, however, the deviation from market fundamentals could still be able to be detected statistically so that the model could incorporate the structure of forecasting errors to improve the out-of-sample forecast values.

In his analysis, a change in the nature of price dynamics, or "oil price regime", was defined according to pre-set criteria of forecasting failures where a significant deviation gave rise to a regime change. Reviewing historical price-influencing episodes, he pointed out that a regime change often took place before the event that was considered decisive to the oil price dynamics.

Mr. Kaufmann discussed that a regime change took place before the OPEC oil embargo in 1974 which triggered the change in the market participants expectation under the new price regime. Incorporating his observation on the current price regime where oil prices are not exogenous to tight oil production, he forecast $83 per barrel in WTI for 2019.

14:30-16:00   Commodity Prices and the Global Economy

Agricultural commodities

Willi Meyers, University of Missouri

Presentation link – click

Mr. Meyers presented the near-term updates on agricultural commodity prices as of August 2018. He highlighted a repercussion of the recent trade disputes between China and the United States on soybeans trade. In the short-term, China's retaliatory tariff on its soybeans imports from the US is to raise the price in China and to reduce it in the US. However, the availability by a seasonal factor gives rise to downward pressure on soybean price. Moreover, the trade disputes may benefit other major suppliers such as Brazil and Argentina, substituting the US exports to China.

The prices of agricultural commodities are projected to stay stable. The prices in grains such as soybeans, rice, and wheat, are expected to remain weak even though the crop yields are expected to go below the trend line, owing to the high level of stock. One exception to this general trend is butter's price spike which is expected to be temporary. However, the US-China trade disputes are considered to be the significant uncertainty factor for agricultural commodity prices.

14:30-16:00   Commodity Prices and the Global Economy

Non-oil commodities and commodity dependence

Janvier Nkurunziza, UNCTAD, Geneva

Presentation link – click

Mr. Nkurunziza briefed on the prospects of commodity prices, introducing the new UNCTAD Commodity price index which covers all major commodities including fuels and precious metals. He explained that the index's showing of recent rebound reflected high weights on energy items. He observed the price trend of other commodities was stable except for buttery-related commodities, such as zinc, which showed drastic price increase.

Mr. Nkuruziza went on to discuss the issue of commodity dependence of developing countries, emphasizing that commodity prices impacted the developing countries' unstable growth path, the commodity dependency is geographically concentrated in Africa and Latin America, and almost all Least Developed Countries are commodity-dependent.

Three transmission channels of poor economic growth related to commodity dependence were discussed. The first is the terms-of-trade volatility channel which is in line with the Prebisch-Singer hypothesis, but short-term volatilities also hamper economic growth. The second is the fiscal and monetary channel which is of fiscal instability, the Dutch Disease and other adverse factors impacting fiscal and monetary stability for growth. The third channel is the fundamental developmental channel, including the issue in revenue management and lack of policy support for diversification. There were a few successful cases in economic diversification such as Costa Rica, but for the majority of developing countries, the issue of commodity dependence remains challenging.

Comments and Questions

A participant asked a question to Mr. Kaufmann on the interpretation of historical episodes before the OPEC became influential in oil price making. On having asked by another participant about the structure of weights in the UNCTAD Commodity price index, Mr. Nkurunziza clarified that the index was weighted by the trade value, rolled-over yearly. Another participant commented on the challenging nature of economic diversification that would push a developing country out of commodity dependency. On having asked there would be any price spike in grain prices, Mr. Meyers answered that the possibility would be low for the substantial amount of stocks that have been stored.

WEDNESDAY, SEPTEMBER 5, 2018
16:30-17:30   Sustainable development and multilateralism
Stylized facts and determinants of investment in Latin America

Esteban Perez, UN/ECLAC, Santiago

Presentation link – click

Research on investment in Latin America suggests, that investment cycles in the region tend to be shorter than GDP cycles by around half, therefore, their volatility tends to be higher as well. Similar observations have been made for all sub-regions – South America, Central America, and Latin America and the Caribbean together. Investment cycle has been estimated for around 7 years, while business cycle for 15.

The gross fixed capital formation (GFCF) cycles were negatively correlated with monetary policy tightening (with some exceptions like Chile), while mostly positively with commodity prices, and economic activity in general. Real exchange rates were negatively correlated with GFCF, likely due to cheaper import of capital. It was noted that for 2011-2016 period, an increasing number of companies record a decreasing return on equity, both among bond-issuing and non-issuing companies, implicating lower returns on investments.

Stefan Kuehn, ILO, Geneva

Presentation link – click

Global unemployment has been reported at just under 190 million persons in 2018, with a slight increase in a forecast for 2019. This puts the stock of unemployed globally at an almost constant level for 2016-2019, despite upturn in the global economy. The minor downward revision has been driven by changes in data collection, and forecasting and estimation errors.

ILO representative stressed, that despite ILO's efforts to provide accurate global unemployment data – thus labour market conditions, a far more important measure of labour markets is the quality of employment. Regarding the most recent data, around 55% of population has no access to social protection. Regarding the "decent work" status, ILO looks into workers labour status, income, informality of employment, contract type, workload (hours), and time-related underemployment. Shortcomings on these qualities qualify around 1.4 billion people globally to fall under "vulnerable employment" definition, with ¾ of workers qualified as such in developing countries.

Regarding the global efforts for poverty reduction, 300 million workers still live in extreme poverty as of 2017, despite being employed/doing some work. This number keeps declining for emerging economies, nevertheless, stays stagnant in less advanced developing economies.

Informality of employment remains a large concern. Around 2 billion employed people are engaged in their work informally, thus lacking any form of legal protection, being prone to abuse and exploitation.

As for the global trends, employment keeps increasing in services sector (50% informally employed, 50% work excessive hours), and in construction among high-growth countries. Declines are observed mainly in manufacturing and agriculture (60-90% in vulnerable employment).

It has been noted by speakers (not an official ILO view), that income inequality and concentration of wealth is substantial structural problem, where wage growth is low at the bottom end of income distribution, in contrast to wealth concentration at the other end.

Day 2 – Thursday, 6 September 2018

Session 09:30 - 11:45 - Regional Outlooks

THURSDAY, SEPTEMBER 6, 2018		
09:30-11:00	Regional Outlooks	
		Latin America and the Caribbean
		Daniel Titelman, UN/ECLAC, Santiago

Presentation link – click

Ms. Cecilia Vera presented ECLAC's Economic Survey of Latin America and the Caribbean. She began the presentation by highlighting the high correlation between external factors, such as world growth, prices of commodities, financial and financing conditions, and the state of the region. Ms. Vera described the evolution of macroeconomic variables in the continent. She reported that this year there was an average improvement in terms of trade, current account deficit widening, increased sovereign risk, slower access to international debt markets and declining reserves as many countries attempt to stabilize currencies.

Ms. Vera explained that the majority of countries in the region raised taxes last year. The increase was meant to help to restore the fiscal balance. Furthermore, the composition of spending has included less public investment and higher interest payments in many countries. Average inflation showed a small modest increase. In South America, though, many countries were able to cut interest rates as inflation came down.

ECLAC's forecasts of economic activity show that consumption is expected to remain the main sustaining driver of growth. There was a downward revision to the growth figures comparing with April 2018, mainly due to the trends in Venezuela, Argentina and Brazil; it is not a generalized phenomenon. It must be noted, however, that there are important discrepancies between South America, Central America and the Caribbean.

In the discussion that followed, participants debated the relevance of terms of trade among LAC countries (some are hardly exposed due to a more prominent service industry), the similarity between this year's outlook and others of the past 50 years as Latin America seems to undergo the same domestic macroeconomic imbalances (pointed as the real source of currency pressures and low growth - not external factors), and a counter-argument to the last point suggesting that LAC's downturns are much less persistent currently. Other points raised included the composition of investment in LAC and the need for political commitment to a medium-term approach, spill-over effects from Argentina's situation, and Brazil's slow recovery amid high policy uncertainty.

Khaled Hussein, UN/ECA, Addis Ababa

Presentation link – click

Mr. Khaled Hussein provided an overview of recent economic developments in Africa on behalf of the UN-ECA. Growth is projected to slightly slow this year as the region's major economies gradually recover. Average fiscal and current account deficits are narrowing but debt levels remain high since 2014. The trade balance worsened. Signing the Africa Continental Free Trade Agreement (AfCFTA) was one of the most important recent developments in Africa. Some small countries which rely on customs duties as the main fiscal revenue source face challenges, but most policy makers have strong political will regarding this project. Continental growth is among the highest in the world, second only to East and South Asia.

Mr Hussein reminded that 34 Least Developed Countries are in Africa, and average poverty stands at 42%. Double digit growth rates are needed if Africa is to eradicate poverty by 2030. Mr. Hussein enumerated 3 main challenges to achieve this goal.

First, investment levels need to be increased to about 30% of GDP. However, it is difficult to increase the savings growth rate to finance such increase in investment. In fact, the gap between investment and savings is widening over time, largely financed by debt rather than FDI. Domestic resource mobilization is needed, namely fighting illicit financial flows and raising tax revenues, but also targeting remittances and addressing the excess liquidity in commercial banks in Africa as the ratio of loans to deposits remains low, which requires cooperation with developed country banks. Secondly, Africa must exit the current demographic trap and reduce population growth. Thirdly, productivity must be increased as it is the lowest in the world.

Contrary to perceived wisdom, Mr. Hussein continued, Africa was greatly impacted by the global financial crisis. Comparing current account and fiscal balances, one can observe accumulation of reserves between 2000-2007 a decrease in 2008 with fiscal expenditures compensating the decrease in foreign investment. Mr. Hussein also noted that East Africa, having no oil exporting countries, has very stable and strong growth driven by consumption and public infrastructure investment, in similitude to South Asia. West Africa is the only sub region with a current account surplus though, due to Nigeria.

The main risks to the outlook include high debt levels, low demand from China, interest rate hikes trade tensions with the United States, a possible return of drought conditions and escalation of insecurity ahead of elections. Meeting participants added that reform programmes in many African economies have been abandoned as policymakers were

distracted by macro-stability concerns and that Africa's main challenges are commodity dependence, political issues and immigration.

Regarding the AfCFTA, one of the challenges is that African economies are not oriented towards inter-African trade. Thus, for African countries to benefit from the agreement, they need to restructure production systems and scale up investment to produce more manufacturing goods. Also, it was pointed out that this large new free trade agreement was created at a time of global withdrawal from multilateralism.

THURSDAY, SEPTEMBER 6, 2018	
09:30-11:00	Regional Outlooks

Challenges in developed economies

David Turner, OECD, Paris

[Presentation link – click](#)

Mr. David Turner focused his presentation on the risks and policy opportunities in OECD economies. He began by illustrating the magnitude of goods impacted by US tariffs. He warned that if many of the threats are implemented, the global impacts could be large. Fiscal loosening levels in OECD countries are at levels last seen in 2009, at the depth of financial crises. If output gaps are almost closed, one must wonder if now is the time to loosen fiscal policy. Perhaps not, Mr. Turner suggested, since government debt has risen since 2007, reaching over 100% in many countries. Also, given the high levels of private sector debt, one must worry about what will happen when interest rates rise. Furthermore, if fiscal deficits increase, this will raise the risk that monetary policy will need to tighten at a faster pace.

Mr. David Turner some work in progress, not sanctioned by the OECD, assessing the current risks of a new financial crisis. Downside risks estimated from a probit model using credit growth, labour market measures, yield curve, among other factors, point to no immediate risks of a financial crisis in most countries, but risks could build over the next 2 years. Mr. Turner declared this is the time to implement structural reforms for sustainable and inclusive growth and identified specific measures that have been chosen in selected economies. In the discussion that followed, Mr. Turner added that most financial crises are preceded by very lax monetary policy, which is in contrast to the suggestion that rising interest rates could be the trigger for financial crises. However, it is a negatively sloped yield curve that could be the trigger.

Session 11:30 - 13:00   - Tariffs, policy and trade dynamics

Presentation link – click

       Mr. Inoue initiated his presentation discussing the recent trends in global trade. In particular, he highlighted that the deceleration in global trade in the last decade was mainly due to the lower economic activity. He also emphasized that during 2017 there was a slight recovery on trade growth, which has come to a stall throughout 2018, though. In this context, Mr. Inoue explained and discussed the recent trends regarding trade growth in Latin America. Noticeably, in 2017 the region experienced a visible recovery in export and import growth, after four years of consecutive declines. Then, Mr. Inoue discussed that South America has not reduced his strong dependency on commodities. This is clearly shown when the composition of exports is disentangled according to their technological intensity. Most of South American export products are soybeans, oil, minerals, and metals.

       Later in his presentation, Mr. Inoue discussed that China is more exposed than the United States in the ongoing trade disputes. From a Latin American perspective, the potential effects of these trade disputes are minimal, or even slightly positive. He also discussed the ongoing negotiations between Mexico and the United States regarding NAFTA, paying particular attention to the elements of uncertainty. In the last part of his presentation,

       Mr. Inoue discussed the relevance of export diversification on growth, emphasizing the positive correlation between them. A higher diversification reduces the volatility associated to export earnings, promotes the productive diversification and the incorporation of technology, and promotes the building of competitive advantages. Finally, Mr. Inoue discussed several recommendations for the region, including: adding value added to natural resources; promoting regional value chains; attracting new investments in infrastructure and manufactures, and promoting public-private partnerships.

THURSDAY, SEPTEMBER 6, 2018
11:30-13:00   Tariffs, policy and trade dynamics
Growth, Aging, and the Future of East Asian Trade Imbalances

Byron Gangnes, University of Hawaii

Presentation link – click

Mr. Gangnes began his presentation by emphasizing that his paper was an application of the National Transfers Account (NTA) framework to the external sector of an economy. In this case, the paper asks what macroeconomic developments associated with demographic change can tell about prospects for East Asia's current account balances. East Asia has experienced large current account surpluses in recent years, capturing almost half of the global current account surplus. Mr. Gangnes then discussed the current account surpluses in East Asia by analysing the recent savings, investments and demographic trends. In particular, he emphasized that there is no consensus in the literature regarding how these factors will shape current account balances in the future.

Issues regarding the projections of current account balances using the National Transfers Account framework were further presented by Mr. Gangnes. In discussing the main results from his paper, he mentioned that the prospects for East Asia's current account are complex. In particular, they will depend on the relative changes in saving and investment and the demographic change. In addition, the government budget adjustment will be a key variable, with direct and indirect effects. Furthermore, the global patterns of saving and investment will matter as well. Noticeably, there is a great deal of uncertainty about all of these factors.

Productive capacities and export dynamics

Sebastian Vergara, UN/DESA, New York

Presentation link – click

Mr. Vergara initiated his presentation by emphasizing that different strands of the literature have highlighted productive capacities and technological capabilities as major engines of export, growth and development. Against this backdrop, Mr. Vergara presented a paper that investigate the relationship between productive capacities and several dimensions of export dynamics. Based on a large sample of developing countries, the paper aims to understand whether differences in productive capacities explain the asymmetry in export performance, namely the extensive margin of exports (number of exporters), the intensive margin of exports (level of exports), product quality and exporters' diversification (products and destinations). In doing this, the empirical strategy controls for other variables that can also be relevant: size of the economy, level of development, openness, size of manufacturing sector and commodity dependency. Then, Mr. Vergara described the dataset used, which comes from the World Bank's Exporter Dynamics Database. The database contains data for 40 developing countries between 2002 and 201. Mr. Vergara later discussed the two different measures used for productive and technological capabilities. The first is the Economic Complexity Index, which measures the sophistication and multiplicity of productive knowledge in countries' productive structures. The second proxy is R&D investments, a measure of technological efforts across countries.

Mr. Vergara then presented the main findings from the empirical exercise. The results show that within sectors, countries with more productive capacities have larger exporters and larger new entrants in foreign markets. Also, the results suggest that countries with more productive capacities have more exporters, in total and per product. In addition, the results show that productive capacities are positively correlated with unit prices: within the same sector, exporters in countries with more productive capacities benefit from higher unit prices. Finally, Mr. Vergara highlighted that the results show a positive relationship between technological capabilities and diversification: countries with higher R&D investments tend to have more products and destinations per exporter, especially in high-tech sectors. In the final part of the presentation, Mr Vergara discussed that the paper uncovers some of the channels through which productive capacities relate to export dynamics: countries with stronger productive capacities have more exporters; and their exporters are larger, more diversified and benefit from higher prices.

Session 14:30 - 16:00 - Monetary policy and global spillovers - Special session sponsored by the Central Bank of Chile

14:30-16:00	Monetary policy and global spillovers - Special session sponsored by the Central Bank of Chile
	Channels of US Monetary Policy Spillovers to International Bond Markets
	Sebastian Claro, PUC-Chile, former Vice-Governor of the Central Bank of Chile, co-authored with Elias Albagli, Luis Ceballos and Damian Romero

Presentation link – click

Mr. Claro presented his findings from his empirical investigation into the channels of US monetary policy spill-overs on international bond markets. He observed that US monetary policy shocks had significant effects on international long-term rates. These spill-over effects have increased considerably following the global financial crisis, due in part to the large quantitative easing measures. However, the transmission channels of a US monetary policy shock varied across countries.

For the developed economies, he noted that the main effect of a US monetary policy shock was on neutral rates. This is consistent with the idea that domestic central banks manage monetary policy to avoid large exchange rate and capital flow movements. However, for the emerging economies, a US monetary policy shock affected the term premia of long term rates.

This is consistent with evidence of active foreign exchange intervention. Mr Claro also noted that from a policy perspective, while foreign exchange interventions may lower the volatility of exchange rates and short-term rates, it leads to increased volatility of long term rates and capital flows.

THURSDAY, SEPTEMBER 6, 2018	
14:30-16:00	Monetary policy and global spillovers - Special session sponsored by the Central Bank of Chile
	The International Transmission of Monetary Policy
	Robert Hills, Bank of England, United Kingdom, co-authored with Claudia Buch, Matthieu Bussière and Linda Goldberg

Presentation link – click

Mr. Hills presented his findings on the international transmission of monetary policy, using evidence from the international banking research network. Based on his study, he noted that US monetary policies generated significant spill-overs for almost all countries. He highlighted that the use of monetary policy proxies was important in analysing the impact of US monetary policy during unconventional policy periods. He also observed that bank characteristics mattered when analysing the transmission channels of US monetary policy. These characteristics include cross border asset and liability positions, domestic monetary policy regime, and access to foreign exchange funding.

THURSDAY, SEPTEMBER 6, 2018	
14:30-16:00	Monetary policy and global spillovers - Special session sponsored by the Central Bank of Chile
	Global Spillover Effects of US Uncertainty
	Saroj Bhattarai, UT-Austin, co-authored with Arpita Chaterjee and Woong Yong Park

Presentation link – click

Mr. Bhattarai presented on the spill-over effects of financial uncertainty in the United States on the emerging economies. Based on his empirical study, he found that an uncertainty shock in the United States had significant effects on the emerging countries, through both real and financial channels. He noted that this entailed significant policy trade-offs for central banks. For instance, in the face of large capital outflows as a result of higher uncertainty in the United States, central banks in the emerging countries could react by raising interest rates to stem outflows, but this would weigh on output growth. Mr. Bhattarai also highlighted that monetary policy responses by the emerging economies can alter the transmission channels of a shock.

| THURSDAY, SEPTEMBER 6, 2018 |
| 16:30-17:30   Financial crises |
| Macroeconomics and Financial Crises |

Ray Barrell, Centre for Macroeconomics, LSE
and Brunel University, co-authored with Dilruba Karim

Presentation link – click

Ray Barrell first reviewed the literature on the factors that have been driving financial crises in the past century. He pointed out that the link between credit growth and financial crises was much weaker than suggested by several recent influential papers, including Schularick and Taylor (2012).

He then presented the estimation results of logit models of financial crises over the period 1980 to 2017. The baseline model that includes measures of capital, liquidity, current accounts and real house price growth performed well, correctly predicting about two thirds of crises. Adding a variety of credit indicators (such as total credit or consumer credit) did not improve the model's explanatory power.

Mr. Barrell also emphasized that some crises (for example in the United States in 1984, and in Germany and Italy in 2008) were very difficult to predict. These findings have important policy implications. Firstly, an excessive focus on credit growth as predictor of financial crises is misguided and potentially harmful. Secondly, since capital and liquidity are key crises predictors, macroprudential tools, in particular capital requirements, are an important defence mechanism. A well-capitalized banking system not only reduces the costs, but also the probability of financial crises.

16:30-17:30	Financial crises

	Booms, Crises and Recoveries: A new paradigm of the business cycle and its policy implications

Sweta Saxena, UN/ESCAP, Bangkok, co-authored with Valerie Cerra

Presentation link – click

Sweta Saxena first showed that on average recessions tend to be associated with permanent loss of output. Following a crisis, economic growth does not rebound quickly, but rather returns only gradually to the pre-crisis trend. The level of real GDP remains permanently below the pre-crisis baseline. This finding has important implications for the concept of the business cycle and the macroeconomic and prudential policies to avoid and respond to crises.

First, the traditional distinction between supply shocks, which permanently affect output, and demand shocks, which have only a transitory economic impact on output, needs to be revisited. In fact, as illustrated in the aftermath of the global financial crisis, a demand shock can morph into a supply shock.

Second, cross-country experience from the Great Recession demonstrates that output does not always exhibit cycles. This puts in doubt the usefulness of 'output gaps' as a measure of a country's cyclical position. In fact, the output gap may not be defined well if trend and actual output move together.

Third, given the high costs associated with recessions and crises, the macroeconomic policy trade-offs need to be re-evaluated, including with regard to financial regulation, monetary policy mandates, foreign exchange reserves and fiscal policy.

Fourth, since recessions and crises are a main impediment to long-run growth and development, a new stylized model of development is suggested. To a significant extent, the lack of convergence between developed and developing countries is attributable to crises.

Discussion:

In the subsequent question and answer session, the role credit growth played in the 2008-09 crisis in Spain was discussed. In addition, it was suggested that the quality of lending was more important than the amount of lending. Accordingly, risk weighting of bank assets matters. It was also noted that lack of convergence was not only due to crises, but also other factors.

Day 3 – Friday, 7 September 2018

Session 09:30 - 11:30 - Regional outlooks

FRIDAY, SEPTEMBER 7, 2018	
09:30-11:30 Regional outlooks	
	Western Asia

Seung Jin Baek, UN/ESCWA, Beirut

Presentation link – click

Mr. Baek presented the outlook for Western Asia, emphasizing that oil price dynamics was still crucial for the region's growth prospects. He reported that the average growth rate for the region slumped in 2017 mainly due to the reduction in oil production while oil prices despite a moderate rise in oil prices. The average growth rate for the region is projected to rebound in 2018 for the increasing crude oil production. Also, some major oil-exporting countries resumed infrastructure investments. In his observation, oil prices would stay higher than the previously projected for the declining global inventory level, the tightening refining margins, and the OPEC's performance on the supply adjustments.

The geopolitical tensions subdued the economic expansions of Iraq, Jordan, Lebanon. Moreover, the workers' remittances to those countries as well as capital inflow were stagnating. The economic growth of Syria was projected to bounce back, but the reconstruction remained challenging against the massive economic loss accumulated over the past seven years. Yemen experienced another year of economic contraction for the ongoing armed conflict. Monetary policy is in the tightening trend in the region in parallel with that of the US Fed. Fiscal consolidation continued – Saudi Arabia and the UAE have introduced VAT and Bahrain and Qatar were expected to introduce it by the end of 2018.

Comments and Questions

A participant presented the economic prospects for Turkey as it was not included in the presentation, assessing that the Turkish economy would need a significant adjustment after many years of high-growth policy with growing twin deficits, both in the fiscal and the balance-of-payments. Another participant commented that the UAE Government had taken several policy measures by which foreign workers were treated fairly.

East Asia and South Asia

Sweta Saxena, UN/ESCAP, Bangkok

Presentation link – click (presentation not uploaded yet)

Ms. Saxena presented the growth outlook for the East and South Asia regions. She noted that growth in both regions is expected to remain stable, with inflation expected to pick up. However, she cautioned that escalating trade tensions and rising financial vulnerabilities pose significant downside risks to the growth outlook. Ms. Saxena also presented a scenario analysis on the impact of China's growth slowdown on the economies in both regions and its policy implications. She highlighted the need for countries to consider using different policies in order to mitigate the risks and maximize the opportunities arising from China's economic transition. In addition, Ms. Saxena also reiterated that greater efforts are needed to ensure more inclusive and sustainable growth in the region.

Economies in transition

Kirill Mikhaylenko, Center for Macroeconomic Analysis and Short-Term Forecasting, Moscow (tbc)

Presentation link – click (presentation not uploaded yet)

Mr. Mikhaylenko presented the growth outlook for the economies in transition. He projected a moderate growth path for the region, amid high external uncertainty and lingering domestic weaknesses. He noted that private consumption growth strengthened in 2018, driven in part by an acceleration in wage growth in many countries. On the monetary policy front, he highlighted that the monetary policy easing cycle has likely ended in the Russian Federation. On the fiscal front, he noted that the fast growth in public debt in several countries was a concern. Mr Mikhaylenko also mentioned that while the banking sector in the Russian Federation and Ukrain remained fragile, it was improving.

Session 11:45 - 13:15 - Roundtable discussion: The future of the Project LINK network

FRIDAY, SEPTEMBER 7, 2018	
11:45-13:15	Roundtable discussion: The future of the Project LINK network
	Chair: Peter Pauly

Presentation link – click

Peter Pauly opened, noting that the purpose of this roundtable discussion is to brainstorm ideas to establishing a framework for future meetings, to reinvigorate the network going forward. He began with a review of the history of the Project LINK and its evolution over the last 50 years. The Project was initially set up to develop a framework for a global model, by integrating the research efforts of various model-building groups. In the first years, the Project was led by members of the Committee on Economic Stability of the United States Social Science Research Council, including R. A. Gordon, Bert G. Hickman, Lawrence R. Klein, and Rudolf R. Rhomberg, with other eminent economists and econometricians from across the world. The Project forged close links with the University of Pennsylvania and the University of Toronto. One of the applications of the LINK model became supporting the production of the global economic forecast by the United Nations, and DESA began hosting and maintaining the model in 1989. At its peak, about 100 countries were represented within the network.

The format and purpose of the Meetings have evolved over time, and participants were invited to comment on what they had most valued about the Meetings over the last decades, and ideas for development. Some of the main points raised in the discussion include:

•   Most participants agreed that moving the meeting forward to an earlier date, and concentrating on substantive issues, with less emphasis on forecast details, would be an appropriate way forward.

•   Some noted that the academic backing of the network, and also the quantitative backing of a model, lends credibility to the UN forecast publications.

•   Participants suggested that the meeting could still act as a useful interface between modelling and forecasting. For example, by asking international institutions to address a common question with their different models, which could be discussed within a single session. This would also help to assess the robustness of model results before making policy recommendations based on a single model's results.

•   It was stressed that organizers can and should be more proactive in identifying topics and bringing in outside experts to address the meeting.

•   Several participants noted that the Project has had an enormous impact in its mentoring role and in developing national and individual expertise in econometrics and forecasting, which in turn has helped improve policy making in many developing economies

•   It was also noted that the Project LINK, more broadly, has made important contributions to the advancement of econometrics.

List of Participants

#	Surname	Name	Country of Sending Office
1	Afonso	Helena	USA
2	Alsharif Alzaabi	Zain	UNITED ARAB EMIRATES
3	Baek	Seung-Jin	LEBANON
4	Barrell	Ray	UNITED KINGDOM
5	Bell	Erin	CANADA
6	Belousov	Dmitry	RUSSIA
7	Bhanumurthy	Rangareddy Nagapudi	INDIA
8	Bhattarai	Saroj	USA
9	Cardenas	Andres	VENEZUELA
10	Castilla	Adolfo	SPAIN
11	Chou	Ray Y.	TAIWAN PROVINCE OF CHINA
12	Claro	Sebastian	CHILE
13	Coutino	Alfredo	USA
14	du Toit	Charlotte	SOUTH AFRICA
15	Etcheberry Court	Sol	CHILE
16	Gaftea	Viorel Nicolae	ROMANIA
17	Ganapin	Bien Alli	PHILIPPINES
18	Gangnes	Byron	USA
19	Garcia	Benjamin	CHILE
20	Guarda	Sebastian	CHILE
21	Gyde Sonnichsen	Britt	DENMARK
22	Hills	Robert	UNITED KINGDOM
23	Holland	Dawn	USA
24	Hussein	Khaled	ETHIOPIA
25	Inoue	Keiji	CHILE
26	Jung	Gwi Il	SOUTH KOREA
27	Kan	Kamhon	TAIWAN PROVINCE OF CHINA
28	Kaufmann	Robert	USA
29	Khanal	Dilli Raj	NEPAL
30	Korablin	Sergiy	UKRAINE

#	Surname	Name	Country of Sending Office
31	Kühn	Stefan	SWITZERLAND
32	Loria	Eduardo	MEXICO
33	Marinopoulos	Nick	AUSTRALIA
34	Meyers	William	USA
35	Mikhaylenko	Kirill	RUSSIA
36	Minassian	Garabed	BULGARIA
37	Mohamed	Faiza Awad	SUDAN
38	Monteiro	Suzana	ANGOLA
39	Mrkaic	Mico	USA
40	Ng	Poh Lynn	USA
41	Nkurunziza	Janvier	SWITZERLAND
42	Ozmucur	Suleyman	USA
43	Park	Jongho	SOUTH KOREA
44	Pasten	Ernesto	CHILE
45	Pauly	Peter	CANADA
46	Pitterle	Ingo	USA
47	Podolski	Michal	USA
48	Reis	Eustaquio	BRAZIL
49	Rivas	Nancy	CHILE
50	Ryu	Jiyoung	SOUTH KOREA
51	Saxena	Sweta	THAILAND
52	Schleicher	Stefan	AUSTRIA
53	Shaw	Allen	USA
54	Sideris	Dimitrios	GREECE
55	Stiblar	Franjo	SLOVENIA
56	Titelman	Daniel	CHILE
57	Turner	David	FRANCE
58	Vargas	Juan-Rafael	COSTA RICA
59	Vera	Cecilia	CHILE
60	Vergara	Sebastian	USA
61	Vorisek	Dana	USA
62	Welfe	Aleksander	POLAND
63	Yamamoto	Yasuhisa	USA

Other

Presentations materials from the LINK meeting are available from:

http://www.rotman.utoronto.ca/FacultyAndResearch/ResearchCentres/ProjectLINK/LINKconferences/LINK-2018-Agenda