Quarterly Credit Report

Q2/2019

Volume 9, No 1





Introduction

The Quarterly Credit Report (QCR) is an analysis of credit outlooks across regions, economies and sectors. This analysis incorporates probabilities of default (PD) generated by the Risk Management Institute - Credit Research Initiative's (RMI-CRI) default forecast model, a part of the RMI Credit Research Initiative at the National University of Singapore (NUS). The QCR provides insights on trends in credit outlooks to credit professionals, investors and researchers.

QCR Volume 9, Issue 1 covers the first quarter of 2019. We discuss the general credit outlook for a selection of economies from around the world, based on relevant indicators, and relate this discussion to forecasts provided by RMI-CRI's PD model.

The appendices in this volume include a comprehensive overview of various outputs that are produced by the operational PD system of RMI-CRI. While the PD system output default forecasts at horizons ranging from one month to five years, the QCR reports only 1-year PDs in order to allow the reader to make consistent comparisons. In addition to the PD produced by the RMI-CRI system, the appendices provide important macroeconomic, corporate credit and sovereign risk indicators. These summarize the credit situation, as well as make detailed data available for reference purposes.

The commentary in the QCR is based on median PD of *exchange-listed firms* within economies and industry sectors. Classification into economies is based on each firm's country of domicile, and classification into industry sectors is based on each firm's Level I Bloomberg Industry Classification. Exceptions are the banking and real estate sectors, where firms are included based on the Level II Bloomberg Industry Classifications. The daily frequency PD graphs in the written commentary are aggregates of firms that have a PD in both the first ten days and last ten days of the quarter. This prevents, for example, drops in the aggregate PD when high PD firms default and leave the sample.

The economies that are considered in each region are based on a selection of 87 economies covered by RMI's default forecast model.

The developed economies of Asia-Pacific include: Australia, Hong Kong, Japan, New Zealand, Singapore, South Korea and Taiwan.

The emerging economies of Asia-Pacific include: Bangladesh, China, India, Indonesia, Kazakhstan, Malaysia, Pakistan, the Philippines, Sri Lanka, Thailand and Vietnam.

Latin America includes: Argentina, Brazil, Chile, Colombia, Jamaica, Mexico, Peru and Venezuela.

North America includes: Canada and the US.

Eastern Europe includes: Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tunisia, Turkey and Ukraine.

Western Europe includes: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Italy, Ireland, Luxembourg, Malta, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the UK.

Africa & the Middle East includes: Bahrain, Botswana, Egypt, Ghana, Israel, Kenya, Kuwait, Jordan, Malawi, Mauritius, Namibia, Morocco, Oman, Nigeria, Rwanda, Saudi Arabia, South Africa, Tunisia, Uganda, United Arab Emirates and the United Republic of Tanzania.

Credit Research Initiative

The QCR is a companion publication to the Weekly Credit Brief and Credit Brief on Singapore SMEs, with all three publications produced as part of the Credit Research Initiative undertaken by RMI.

These publications supplement RMI-CRI's operational Probability of Default (PD) model. The model takes financial statements and market data from a database of more than 68,000 listed firms and estimates a PD for each firm, effectively transforming big data into smart data. The outputs from the RMI-CRI PD model are available free for all users at:

www.rmicri.org

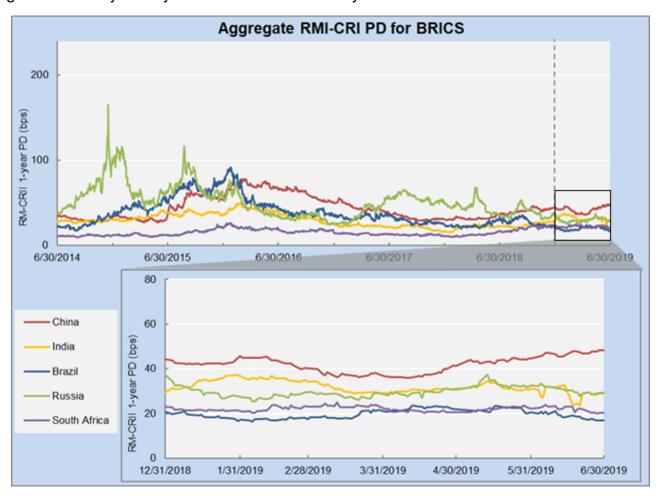
As of March 2019, the PD system covers 133 economies in Africa, Asia-Pacific, Latin America, North America, the Middle East and Europe. The probabilities of default include historical data for firms that are now delisted from exchanges or firms that have defaulted. PDs aggregated at the region, economy and sector level are also available. The full list of firms is freely available to users who can give evidence of their professional qualifications to ensure that they will not misuse the data. General users who do not request global access are restricted to a list of 5,000 firms. The PD system operates in a transparent manner, and a detailed description of our model is provided in a Technical Report available on our website.

Acronyms

- ADR Average Default Rates
- BI Bank of Indonesia
- BOE The Bank of England
- CAD Current Account Deficit
- CDS Credit Default Swap
- CLI Composite Leading Indicator
- CRI Credit Research Initiative
- ECB European Central Bank
- ELA Emergency Liquidity Assistance
- ESI Economic Sentiment Indicator
- ESMA European Securities and Markets Authority
- EU The European Union
- FTV Financing-to-value
- FDI Foreign Direct Investment
- FX Foreign Exchange
- GFC 2008-2009 Global Financial Crisis
- INR Indian Rupee
- ISTAT Italian National Institute of Statistics
- LATDB Liquid assets to deposits and short-term borrowings ratio
- LHS Left-hand side of graph
- LTV Loan-to-value
- MAS Monetary Authority of Singapore
- MIDF Malaysian Industrial Development Finance Berhad
- MLF Medium term Lending Facility
- MPC Monetary Policy Committee
- MOM Ministry of Manpower
- MoM Month on Month

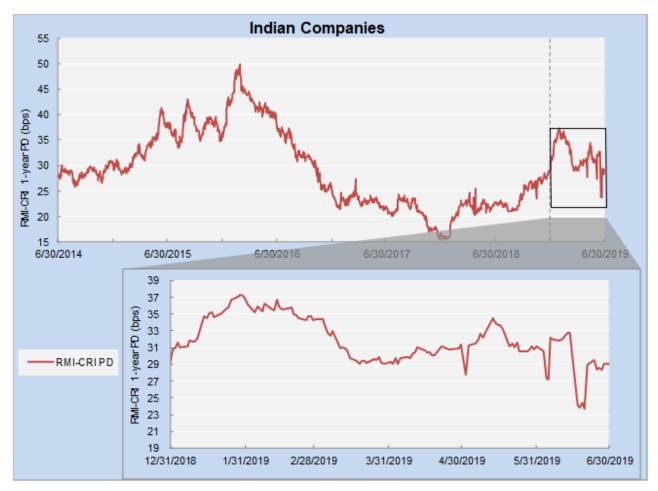
	Net late as at an energy
	Net Interest margin
	Non-oil domestic exports
NPA	Non-performing assets
NPL	Non-performing loan
OECD	Organisation for Economic Co-operation and Development
OJK	Otoritas Jasa Keuangan (Financial Services Authority of Indonesia)
OPR	Overnight Policy Rate
PBOC	The People's Bank of China
PCA	Prompt Corrective Action
PD	Probability of Default
PMI	Purchasing Managers Index
PCI	Performance of Construction Index
PSI	Performance of Services Index
PSL	Pledged Supplementary Lending facility
QCR	Quarterly Credit Report
QoQ	Quarter on Quarter
REITS	Real Estate Investment Trusts
RBA	Reserve Bank of Australia
RBI	Reserve Bank of India
RMI	Risk Management Institute
RMI-CRI	Risk Management Institute Credit Research Initiative
RHS	Right-hand side of graph
RRR	Reserve requirement ratio
Sebi	Securities and Exchange Board of India
SDF	Standing Deposit Facility
SLF	Standing Lending Facility
WAIR	Weighted average interest rate
WMP	Wealth Management Product
YoY	Year On Year

In the second quarter of 2019, listed companies in BRICs see a better credit outlook other than China. The RMICRI aggregate PDs for India, Russia, South Africa and Brazil improved as compared to the last quarter despite weaker economy indicators. India's economy expanded at a slower pace than last quarter. The improvement in credit profile for Chinese companies comes amid its lowest quarterly growth rate of 6.3% since the global financial crisis. GDP growth is slowing down as the trade war with the US intensifies which may hit global economy activity in the second half of this year.



Indian Companies

The RMI-CRI aggregate PD for Indian firms remained almost constant at 29.2bps in June 2019 as compared to 29.14bps in March 2019. On the production side, this growth could be attributed to the growth in electricity, gas, water supply and other utility services, public administration, defence and other services, and trade, hotels, transport, communication and services related to broadcasting. While inflation rate decreased to an annual rate of 2.02% in June, wholesale price index rose by 0.2% in June. Current account deficit decreased due to higher earnings from telecommunications, computer and information services. Monetary wise, Reserve Bank of India (RBI) is monitoring liquidity conditions carefully through a purchase of Government securities under Open Market Operations (OMO).



Economy

India's real Gross Domestic Product for Q1 2019 grew at an annual rate of 5.0%. Sectors that experienced strong growth YoY include electricity, gas, water supply and other utility services (8.6%), public administration, defence and other services (8.5%), and trade, hotels, transport, communication and services related to broadcasting (7.1%). IMF cuts India's growth forecast to 7.0% for FY20 and 7.2% in FY21, reflecting a weaker-than expected outlook for domestic demand. ^{1,2}

- India's manufacturing sector lost growth momentum in June due to slower order growth leading to slower output and employment growth. The Nikkei India Manufacturing PMI slightly weakened in June to reach a level of 52.1 from 52.7 in May. While consumer goods were a key source of growth in June, capital goods did not see any significant rise in output. Firms remain optimistic, however, about growth prospects in June as they expect a pickup in demand due to stable political conditions and their own marketing initiatives. ³
- The annual rate of inflation, based on monthly Wholesale Price Index (WPI), decreased to an annual rate of 2.02% in June from an annual rate of 3.18% for the month of March. The wholesale price index rose by 0.2% over the previous month, which was mainly due to increasing prices for primary articles. The MCX India Crude Oil Spot Index increased to 4114 from 4092 in Q2 2019 despite investors' concern over the prospects for global economic growth and fuel demand. ^{4,5}
- India's current account deficit (CAD) decreased to USD 4.6bn (0.7% of GDP) in Q1 2019 from USD 17.7bn (2.7% of GDP) in Q4 2018 and was lower than in the same quarter last year at USD 13.0bn (1.8% of GDP). The contraction of the CAD on a YoY basis is primarily due to a lower trade deficit of USD 35.2bn as compared with USD 41.6bn a year ago. Net services receipts increased on a YoY basis due to a rise in net earnings from telecommunications, computer and information services. Private transfer receipts, mainly representing remittances by Indians employed overseas, declined by 0.9% to USD 17.9bn as compared to the preceding year.⁶
- During Q2 2019, the Indian Rupee (INR) weakened 0.32% against the US dollar. In Feb 2019, net inflows from foreign portfolio investors in India reached USD 5.93bn in Q2 2019.⁷

Monetary

- According to the bi-monthly monetary policy statement on June 6, 2019, the RBI reduced the policy rate (repo rate) to 5.75%. Consequently, the reverse repo rate under the liquidity adjustment facility was reduced to 5.50%. Similarly, the Bank Rate dropped to 6.00%.⁸
- The Reserve Bank conducted a total of two open market purchase operations in May to inject INR 250bn of durable liquidity. Liquidity adjustment facility (LAF) injected, on a daily net average basis, was INR 700bn in April and INR 334bn in May. The weighted average call rate (WACR), on an average, remained broadly aligned with the policy reportate in April and May.⁹
- The Monetary Policy Committee (MPC) stated that the retail inflation remained unchanged in April. The inflation was driven by an increase in prices of items in the food, and fuel and light group. Inflation excluding food and fuel fell sharply to 4.5% in April from 5.1% in March.¹⁰

• Dismal GDP growth in the first quarter spurred RBI to contemplate whether it needs to cut rates further. Combined with the expectations of low inflation, the monetary policy committee (MPC) will likely have space to cut rates by up to 75bps through the rest of FT2020, with a cut of around 40bps likely in the October MPC meeting itself.¹¹

Funding & Liquidity

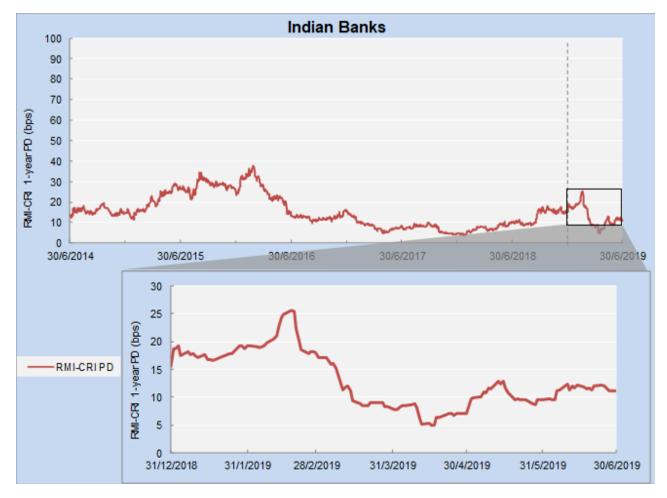
- The yield on India's 10-year government sovereign bonds fell to 6.88% during Q2 2019 from 7.35% in Q1 2019. ¹²
- The RBI has lowered its policy rate by 110bps since February but banks were still reluctant to lend. One possible reason why banks were reluctant to rent was due to the tightness in liquidity and the stickiness in deposit rates. To solve this problem, RBI has ensured sufficient liquidity flow into the inter-banking system since then, prompting banks to lower their interest rates. The main objective of this liquidity management is to align the weighted average call rate (WACR) with the policy repo rate.¹³

Sovereign Credit Ratings

• Fitch, S&P and Moody's kept their ratings on the sovereign bonds of India at BBB-, BBB- and Baa2 respectively in Q2 2019, all of which have 'stable' outlook, unchanged from the previous quarter.

Indian Banks

The aggregate 1-year NUS-CRI PD for Indian banks increased slightly in Q2 2019. Recovery for Indian's banking sector will take quite a while as liquidity has tightened and funding costs have gone up, putting pressures on the growth and profitability of banks. RBI warned that it is essential to remain vigilant on the asset quality of banks and to keep watch on the resolution of stressed assets with a focus on the implementation of the new resolution framework.



Profitability

- Non-financial borrowings decreased to INR 3.53tn on June 21, 2019 from INR 3.78tn on March 29, 2019. Other liabilities such as time deposits with non-financial institutions decreased to INR 5.20tn in Q2 2019 from INR 5.43tn in Q1 2019.¹⁴
- The Credit-Deposit ratio for the banking system decrease to 77.25% on June 21, 2019 from 77.68% on March 29, 2019. Bank credit decreased from INR 97.64tn to INR 96.49tn during Q2 2019.¹⁵

• The recovery of Indian's banking sector will take quite a while because of the stress in the domestic corporate and non-banking finance sectors. Liquidity has tightened and funding costs have gone up, putting pressures on the growth and profitability of banks. While banks' earnings have improved marginally, they remain weak and the improvement will be on account of a decline in provisioning costs, lower incremental slippages, and recoveries from existing NPLs.¹⁶

Funding & Liquidity

- The weighted-average call money rate, the interest rate on short-term finance repayable on demand, decreased from 6.35% as of March 30, 2019 to 5.78% as of June 28, 2019. The call money rates were generally lower than the repo rate during Q2, indicating a stable banking system.¹⁷
- The amount of cash on the balance sheet of Indian banks increased from INR 748.1bn on March 29, 2019 to INR 793.8bn on June 21, 2019.
- Deposit rates generally remained stable in Q2 2019. According to the Reserve Bank of India's daily call money rates, interest rates decreased to 6.16% in April 2019, from 6.35% in Q1 2019.¹⁹

Asset Quality

A report by Care Ratings have found close to half of the 36 Indian banks had non-performing asset (NPA) ratio above 10%. Out of these 17 banks with high non-performing asset, 16 of them are public sector banks (PSBs). The report stated that the Indian banking system is currently in an interesting phase as it handles various issues pertaining capital, quality of assets, deposits and credit allocation. Interestingly, the report found that while NPAs for private banks have been increasing continuously over the quarters, NPAs for PSBs only rose until March 2018 and then declined in the next four quarters before increasing again in June 2019.

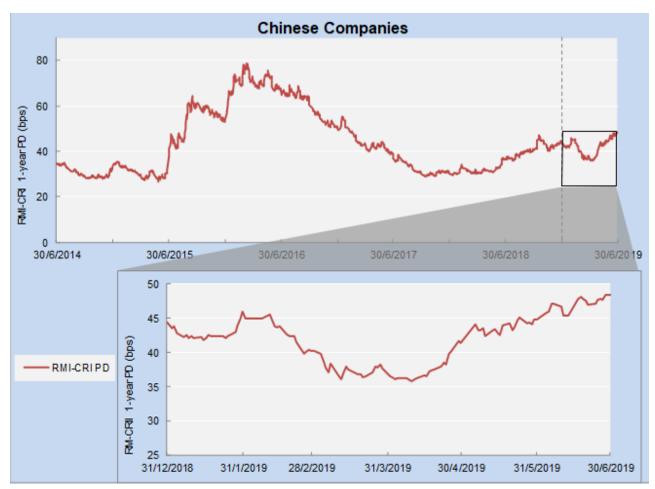
- ²Jul 23, 2019 IMF cuts India's FY20 growth forecast by 30bps to 7%, The Economic Times, https://economictimes.indiatim
- ³Jul 01, 2019 India's manufacturing sector growth moderates in June amid softer rise in orders: PMI, The Economic Times, https://economictimes.indiatimes.com
- ⁴Jul, 2019 Index Numbers of Wholesale Price in India, Ministry of Commerce & Industry Office of The Economic Advisor, eaindustry.nic.in
- ⁵Jun 28, 2019 Crude Oil Spot Market Price, MCX India, mcxindia.com
- ⁶Jun 28, 2019, Developments in India's Balance of Payments during the Fourth Quarter of 2018-19, Reserve Bank of India, rbi.org.in
- ⁷Jun 28, 2019, Daily Trends in FPI Investments, Natinoal Securities Depository Limited (NSDL), fpi.nsdl.co.in
- ⁸Jun 06, 2019 Second Bi-monthly Monetary Policy Statement, 2019-20 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, Reserve Bank of India, rbi.org.in
- ⁹Jun 06, 2019 Second Bi-monthly Monetary Policy Statement, 2019-20 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, Reserve Bank of India, rbi.org.in
- ¹⁰Jun 06, 2019 Second Bi-monthly Monetary Policy Statement, 2019-20 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, Reserve Bank of India, rbi.org.in

¹Aug 30, 2019, PRESS NOTE ON ESTIMATES OF GROSS DOMESTIC PRODUCT FOR THE FIRST QUARTER (APRIL-JUNE), Ministry of Statistics and Programme Implementation, mospi.nic.in

- ¹¹Sep 03, 2019 Due to dismal GDP, RBI may cut repo rate by 40 bps: Kotak Equities report, Livemint, https://www.livemint.com/
- ¹²Jun 2019, India Govt Bond Generic Bid Yield 10 Year, Bloomberg, bloomberg.com
- ¹³Aug 29, 2019 RBI to focus on making liquidity management better, The Economic Times, http://economictimes.indiatimes
- ¹⁴Jul 05, 2019 Scheduled Commercial Banks Business in India, Reserve Bank of India, rbi.org.in
- ¹⁵Jul 05, 2019 Scheduled Commercial Banks Business in India, Reserve Bank of India, rbi.org.in
- ¹⁶Aug 27, 2019 Indian banks' recovery will see delay on NBFC, corporate stress: S&P, Business Standard, https://www.business-standard.com
- ¹⁷Jul 05, 2019 Cash Reserve Ratios and Interest Rates, Reserve Bank of India, rbi.org.in
- ¹⁸Jul 05, 2019 Scheduled Commercial Banks Business in India, Reserve Bank of India, rbi.org.in
- ¹⁹Jun 11, 2019 Reserve Bank of India Bulletin June 2019, Reserve Bank of India, rbi.org.in
- ²⁰Sep 04, 2019 Care Ratings says 17 banks have bad loan ratio above 10%, Livemint, https://www.livemint.com/

Chinese Companies

GDP growth rate dropped down 20bps to 6.2% compared with the previous quarter. Overall growth momentum continued to slow as Chinese corporates face both internal and external headwinds. The 1-year aggregate PD for Chinese firms continues to show an upward trend in Q2 2019 as a wave of defaults and contraction in bond financing has hit the economy. The focus in the first half of 2019 seems to be on its prudent monetary policy to stabilize its economic growth. In order to spur growth, the Loan Prime Rate was introduced to reduce borrowing costs and Required Reserve Ratio was slashed again to inject liquidity into the monetary system.



Economy

- The Chinese economy advanced 6.2% year-on-year in the second quarter of 2019, slowing from a 6.4% expansion in the previous three-month period and matching market expectations. It was the lowest growth rate in 27 years, amid ongoing trade tensions with the US, weakening global demand and alarming off-balance-sheet borrowings by local governments. On a quarterly basis, the economy grew by 1.6% in the second quarter, the strongest pace of expansion since the third quarter of 2018. ²¹
- China's annual inflation rate rose to 2.8% in July 2019 from 2.7% in the previous month and above market estimates of 2.7%. That was the highest rate since February 2018 boosted by the fastest increase in food prices since January 2012, as pork prices were persistently high in the wake of an outbreak of African swine fever. Annual core inflation, which strips out volatile food and energy prices, came in at 1.6 % in July, unchanged from the previous month. ^{22,23}
- Unemployment Rate in China decreased to 3.61% in the second quarter of 2019 from 3.67% in the first quarter of 2019. Unemployment Rate in China averaged 4.08% from

2002 until 2019, reaching an all-time high of 4.30% in the fourth quarter of 2003 and a record low of 3.61% in the second quarter of 2019. 24

- The Caixin China General Composite PMI rose to 51.6 in August 2019, the highest in four months, from 50.9 in the previous month. Services growth was at three-month high (PMI at 52.1 vs 51.6 in July) and manufacturing production expanded for the first time since May (PMI at 50.4 vs 49.9 in July). Total new order increased the most in four months and the pace of job creation was the fastest since January 2015. In terms of prices, input costs rose at the softest rate for seven months while output prices declined. Finally, Chinese firms were generally optimistic that output would increase over the next year. ^{25,26}
- In the first seven months of 2019, the investment in fixed assets (excluding rural house-holds) reached CNY 34.9tn, up by 5.7% year-on-year, and the growth rate was 0.1% lower than that in the first six months. In July, the investment in fixed assets (excluding rural households) increased 0.43%, month-on-month. Of which, the private investment in fixed assets reached CNY 21.0tn, a year-on-year decrease of 0.3%, while the growth rate decreased by 0.3% point from the first six months. ²⁷
- China's trade surplus widened to USD 34.83bn in August 2019 from USD 26.30 billion in the same month a year earlier and compared to market expectations of a USD 43.0 billion surplus. Exports declined unexpectedly by 1 % to USD 214.8bn, while imports fell at a faster 5.6 % to USD 179.9bn. China's trade surplus with the US narrowed to USD 26.9bn in August from USD 27.9bn in July. ²⁸

Monetary Policy

- China's monetary authority will maintain a prudent monetary policy in the second half of this year, although some external factors may add to economic growth pressure, according to the country's central bank. In the latest quarterly issued monetary policy report, the central bank said it would keep its prudent monetary policy "neither too tight nor too loose" and make adjustments in a timely and moderate manner in the July-to-December period. Measures will also be taken, to keep liquidity at a reasonable and ample level, as "counter-cyclical adjustments" to stabilize economic growth in the following months, it said. ²⁹
- The growth pace of M2, a broad measure of money supply that covers cash in circulation and all deposits, slowed to 8.1% by the end of July, its lowest level since December 2018. Total social financing, which includes off-balance sheet forms of financing such as initial public offerings and loans from trust companies, fell to CNY 1.01tn in July, from CNY 2.26tn yuan in June, the central bank reported. ³⁰
- PBOC pushed out long-awaited interest rate reforms by establishing a reference rate

 the Loan Prime Rate (LPR) for new loans issued by banks to help steer corporate borrowing costs lower and support a slowing economy. The first LPR was set at 4.25%, or a 95bp spread over the current one-year MLF of 3.30%. By comparison, the current PBOC benchmark rate is 4.35%, meaning there was a 10bp cut in loan rates, which may seem small but it is a sure signal of things to come. PBOC laid out requirements for the banks to apply the LPR to new loans in the very near future, as follows: 30% of new loans must be based on LPR by end-September 2019 and a cut to the MLF is likely to immediately follow the Fed cut; 50% by end-December 2019; 80% by end-March 2020.³¹
- PBOC said its reserve requirement ratio will be cut by 50bps effective from 16 September 2019, with further cuts targeted to take place on 15 October 2019 and 15 November 2019 for some qualified banks. The move would effectively pump CNY 900bn of liquidity into the Chinese banking system. It is the 3rd reserve ratio cut this year and the 7th

since 2008. 32

- 10-year government bond yield increased from 3.13% at end-March 2019 to 3.28% at end-June 2019.
 1-year government bill yield increased from to 2.48% to 2.62% over the same period.³³
- The 3-month 5-day average SHIBOR decreased from 2.81% on 29th Mar, 2019 to 2.71% on 28 Jun 2019. $^{\rm 34}$
- China's foreign exchange reserves rose by USD 3.50bn to USD 3.10tn in August 2019, defying market expectations of a USD 4.00bn fall to USD 3.10tn, as the country maintained a stable balance of international payments and generally stable economic growth. Still, the yuan posted its biggest monthly drop in 25 years in August amid an escalating trade war with the US. The value of China's gold reserves rose to USD 95.45bn from USD 87.876bn at end-July. ³⁵

Fiscal Policy

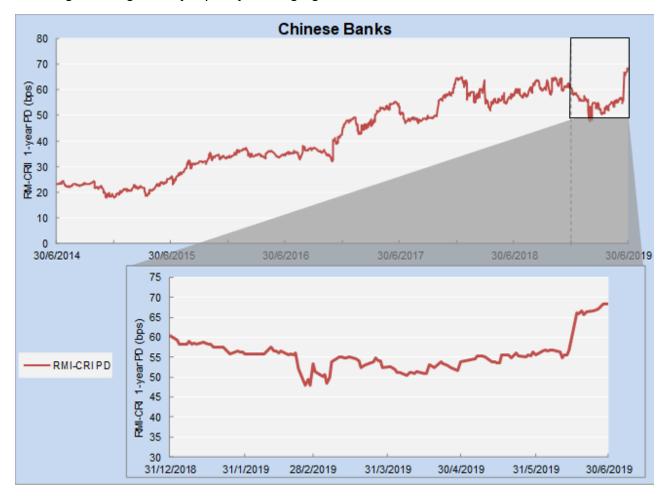
• China's fiscal revenue increased 3.1% year on year to over CNY 12.56tn in the first seven months of 2019, official data showed Friday. The country's central government collected more than CNY 6.04tn yuan during the period, up 3.3% year on year, while local governments saw fiscal revenue up 3% to about CNY 6.52tn. China's fiscal spending expanded 9.9% year on year to around CNY13.8tn during the January-July period. The central government spent a total of CNY 1.96tn in the first seven months, up 9.5% from the same period last year, while local governments' spending grew 10% year on year to CNY 11.84tn. China will maintain a proactive fiscal policy stance in 2019, with a higher deficit-to-GDP ratio to leave policy space to address potential risks.³⁶

Sovereign Credit Ratings

• Both S&P and Fitch maintained rating A+ on the Chinese government while Moody's credit rating for China stood at A1, all with a stable outlook.³⁷

Chinese Banks

The aggregate 1-year RMI PD over the second quarter of 2019 illustrated an upward trend. As Non-Performing Loans grow this quarter, we see Chinese banks suffer from lower profitability from tightening net interest margins. With the new LPR introduced, the PBOC will observe how the new measure will affect its current Medium-term Lending Facility and Standing Lending Facility liquidity managing tools.



Profitability

Net interest margins of China's four largest State-owned commercial banks (BOC, ICBC, CCB and ABC) fell 8 basis points year-on-year on average in the first half of 2019, as a result of the increase in deposit costs triggered by interest rate liberalization and the lowering of lending rates in support of the real economy, bankers and analysts said. During this period, the decline in the net interest margin, the ratio of net interest income to interest-earning assets, of the country's "big four" banks ranged from 1 bp to 19 bp. ³⁸

Funding & Liquidity

- Chinese banks extended CNY 1.06tn in net new yuan loans in July 2019, compared to CNY 1.66tn in the previous month and market consensus of CNY 1.25tn. Household loans, mostly mortgages, fell to CNY 511.2bn in July from CNY 671.7bn in June, while corporate loans tumbled to CNY 297.4bn from CNY 910.5bn. Chinese banks usually make fewer loans in July after boosting lending in June. ³⁹
- China's outstanding medium-term lending facility (MLF) totalled CNY 3.41tn at end-August, compared with CNY 3.39tn yuan at end-July, the central bank said on Monday. The People's Bank of China (PBOC) issued CNY 550bn via its MLF in August. The central bank also issued CNY 22.4bn via the standing lending facility (SLF) in August.

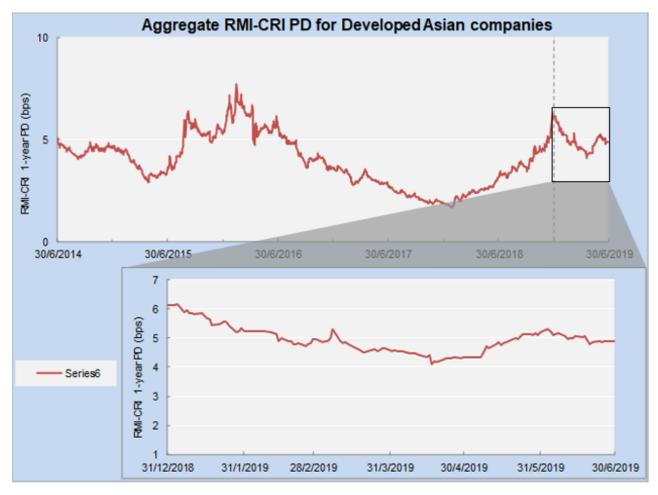
Outstanding SLF was at CNY 22.3bn at end-August, compared with CNY 33bn yuan at end-July. China's pledged supplementary lending (PSL) facility stood at CNY 3.49tn yuan by end-August, versus CNY 3.50tn at end-July, according to the PBOC. The PBOC uses the MLF and the SLF as tools for managing short- and medium-term liquidity in the country's banking system, and uses the PSL programme to better target medium-term lending rates while boosting liquidity to specific sectors. ⁴⁰

Asset Quality

- Total non-performing loans (NPL) in the Chinese banking system rose to CNY 2.24tn during the three months to June, up CNY 78.1bn, or 3.6% from the first quarter of this year. The NPL ratio edged up by a marginal 0.01 %age points to 1.81% during the quarter. Provision for loan losses rose to CNY 4.26tn yuan at the end of June, up 3% from the end of March. Chinese banks' core tier 1 capital adequacy ratio a key measure of a bank's financial strength declined to 10.71 % at the end of June, down 0.23% from three months earlier. Banks' liquidity ratio dropped to 55.77 % at the end of June, down 1.04% from the previous three months. ⁴¹
- ²¹Jul 15, 2019, China GDP Annual Growth Rate, Trading Economics, http://www.tradingeconomics.com
- ²²Aug 9, 2019, China Inflation Rate, Trading Economics, http://www.tradingeconomics.com
- ²³Sep 1 2019, China's Producer Price Index, Trading Economics, http://www.tradingeconomics.com
- ²⁴Sep 1 2019, China Unemployment Rate, Trading Economics, http://www.tradingeconomics.com
- ²⁵Sep 2, 2019, Caixin China General Manufacturing PMI, Markit Economics, https://www.markiteconomics.com
- ²⁶Sep 4, 2019, Caixin China General Services PMI, Markit Economics, https://www.markiteconomics.com
- ²⁷Aug 16, 2019, Investment in Fixed Assets for the Frist Twelve Months of 2018, National Bureau of Statistics of China, http://www.stats.gov.cn
- ²⁸Aug 9, 2019, China Balance of Trade, Trading Economics, http://www.tradingeconomics.com
- ²⁹Aug 13 2019, Monetary policy to remain prudent in H2, China Internet Information Center, http://www.china.org.cn
- ³⁰Aug 13 2019, Monetary policy to remain prudent in H2, China Internet Information Center, http://www.china.org.cn
- ³¹Sep 9, 2019, Loan Prime Rate signals PRC rate cuts, Asia Times, https://www.asiatimes.com/
- ³²Sep 6, 2019, China cuts banks' reserve ratios, frees up \$126 billion for loans as economy slows, Reuters, http://www.reuters.com
- ³³Sep 1 2019, Yield of Government Securities, China Foreign Exchange Trade System, http://www.chinamoney.com.cn
- ³⁴Sep 1 2019, SHIBOR, Shanghai Interbank Offered Rate, http://www.shibor.org
- ³⁵Sep 1 2019, China Foreign Exchange Reserves, Trading Economics, http://www.tradingeconomics.com
- ³⁶Aug 16, 2019, China's fiscal revenue up 3.1 pct, Xinhua, http://www.xinhuanet.com
- ³⁷Jul 04, 2019, Rating: China Credit Rating, Country Economy, https://countryeconomy.com
- ³⁸Sep 3, 2019, Big four banks' interest margins down, China Internet Information Center, http://www.china.org.cn
- ³⁹Aug 12, 2019, China New Yuan Loans, Trading Economics, http://www.tradingeconomics.com
- ⁴⁰Sep 2, 2019, China's outstanding MLF at 3.41 trln yuan at end-Aug, Reuters, http://www.reuters.com
- ⁴¹Aug 13, 2019, Bad loans in China's banking system mount, rise 3.6 per cent in second quarter, South China Morning Post, http://www.reuters.com

Asia-Pacific - Developed economies

The RMI-CRI aggregate 1-year PD for listed companies in the developed Asia Pacific decreased during the second quarter of 2019, fueled by easing monetary policy. The ongoing US-China trade tensions, which weigh on the macro environment, affect trade and investment decisions which may slow down the region's growth. Singapore's economy grew in Q2 with a slower than expected 0.1% GDP YoY growth. Singapore grew at a slower pace due to the contracting manufacturing sector which contracted by 3.8%. At the same time, Australia reported a 0.5% GDP YoY growth in Q2 2019, in line with market expectations. Developed Asia Pacific economies are expected to see a softening in growth reflecting the global headwinds coming from trade tensions and a slowdown in China's growth.



Australian Companies

The aggregate 1-year RMI PD for Australian companies inched up slightly during Q2 2019. Based on Q2 data, YoY economic growth was at its weakest since the Global Financial Crisis. Going forward, the credit outlook for Australian firms remain dependent on the rebalancing of the economy as the increasing performances of household consumption, exports, construction sectors and decreasing unemployment rate fades the concern in household debts. Credit standards have been tightened to reduce the risk profile of household borrowers. Attempts to support economic growth is also assisted by RBA's monetary policy in boosting investment and hiring. Low level of interest rates, further progress in reducing unemployment, as well as having inflation return to target are supporting the Australian economy.



Economy

- The Australian economy expanded by 0.5% from Q1 2019 to Q2 2019, higher than the 0.4% expansion in the previous period and in line with market expectations. Furthermore, the economy increased by 1.4% YoY which is the weakest growth rate since the Global Financial Crisis. ^{42,43}
- Despite a subdued household consumption and a slump in private investment, the positive contribution from net exports and a faster rise in government spending managed to offset these slowdown. Government spending increased by 2.7% in the second quarter while gross fixed capital formation shrank by 1.7%. ⁴⁴
- The Reserve Bank of Australia's (RBA) had decided to keep the cash rate unchanged at 1%, amid an accommodative global financial conditions and low unemployment rates. Supported by the low level of interest rates, recent tax cuts, ongoing spending on infrastructure and a brighter outlook for the resources sector, the Australian economy is expected to grow by around 2.5% over 2019 and 2.75% over 2020. The long term

bond yields have declined further to historically low levels. Inflation remains low over the past year and is expected to increase gradually over the next couple of years. The central scenario for inflation is 2.0% in 2020 and a little above 2.0% in 2021.⁴⁵

- The unemployment rate level remained at 5.2% in June 2019 ever since April 2019. The number of employed increased by just 500 in June while at the same time the number of unemployed rose by 6,600. Furthermore, the labor force participation rate level remained unchanged at a record-high 66.0% in June, which is in line with the market forecasts. Meanwhile, the employment to population ratio declined by 0.1% to 62.5%. ⁴⁶
- The Australian Performance of Manufacturing Index (PMI), as reported by The Australian Industry Group, fell 3.3 point to 49.4 in June 2019. This signals the first mild contraction and is the lowest result since August 2016. Five of the seven sub-indexes indicated expansion or stable conditions in June. The Australian Performance of Services Index (PSI) fell slightly by 0.3 points to 52.2 in June 2019. The June results suggested trading conditions are gradually returning to a more comfortable range after several months of contraction. Meanwhile, the Australian Performance of Construction Index (PCI) increased by 2.6 points to 43.0 in June, indicating a slight easing in the construction industry's overall rate of contraction. ^{47,48},⁴⁹
- Key export prices rose 3.8% in Q2 2019, relative to previous quarter and 17.4% increase from the corresponding 2018 quarter. Metalliferous ores and metal scrap posted the highest increase in prices in this quarter. On the other hand, import prices rose 0.9% in Q2 2019, indicating a 2.8% rise year-on-year. The rise was driven by higher prices in petroleum related products. Trade surplus widened to AUD 8.04bn in June 2019 as exports increased 1% month over month while imports dropped 4%. The Balance of Trade in Australia reached an all-time high of AUD 8036mn in June 2019. 50,51

Monetary Policy

The Reserve Bank of Australia (RBA) decided to lower its benchmark interest rate by 25 basis points to 1%. Despite the global financial conditions remaining accommodative, the persistent downside risks to the global economy combined with subdued inflation have led to expectations of easing of monetary policy by major central banks. Credit demand continues to be subdued amid tight credit conditions especially for small and medium-sized businesses. The cut in interest rate is expected to assist in reducing unemployment and have inflation return to its target over time. ⁵²

Funding & Liquidity

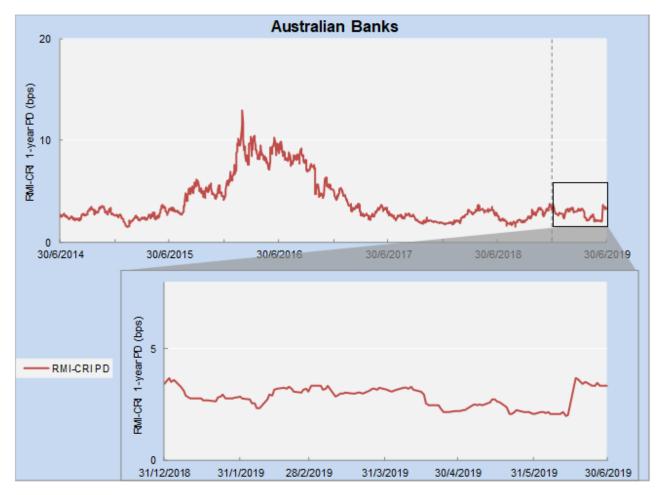
- Yields on 10-year Australian government bonds showed a gradual decrease throughout the quarter with 2.38% in April 2019, 2.18% in May 2019, and back to 1.91% in June 2019. The previous quarter reported a different trend from the 2.72% in January 2019, 2.60% in February 2019, and back to 2.46% in March 2019. ⁵³
- The 3-year fixed lending rates to small businesses decreased to 4.75% in Q2 2019 from 5.14% in March 2019. The lending rates for owner-occupied housing loan decreased to 5.15% in June from its previous value of 5.37% in March 2019. ⁵⁴
- Average commercial lending during the quarter remained largely the same driven mainly by lending to the business sector. Total loans to financial intermediaries, government and individuals continue to increase in Q2 2019. ⁵⁵

Sovereign Credit Ratings

 Standard & Poor's and Fitch Ratings maintained their AAA ratings on Australia, while Moody's maintained their Aaa rating. All three rating agencies had stable outlooks on the government's credit.⁵⁶

Australian Banks

The aggregate 1-year RMI PD has increased slightly over the quarter. The profitability of banks has slightly decreased due to challenging regulatory and operating environment. NIMs and asset quality for Australian banks also worsened during Q2 2019. ^{57,58}



Profitability

 For the first half of 2019, aggregate cash profit after tax from continuing operations decreased by 4% from 1H18 to AUD 14.5bn. This was largely due to challenging regulatory and operating environment, margin pressure, slight deterioration in credit quality, divestment of non-core businesses and continued customer remediation costs being featured in the results. ⁵⁹

Funding & Liquidity

Australian major banks continued to maintain a strong Common Equity Tier 1 capital position by increasing 25bps from 2H18 to 10.8%, which is above the APRA benchmark of 10.5%. Mainly driven by domestic retail lending, net interest margin for all major banks declined. The Liquidity Coverage Ratio of Australian banks remained well above its 100% minimum, with the major banks averaging a level above 130%. Meanwhile, the leverage ratio for major banks is running at an average of 5.6%, higher than the currently agreed minimum requirement of 3%.⁶⁰

Asset Quality

Asset quality slightly deteriorated as reflected by a 9.4% increase in aggregated impaired assets to AUD 8.9bn. The implementation of AASB 9 resulted in an increase in credit provisions of AUD 2.9bn compared to 2H18, which reflects the incorporation of forward looking factors and an assessment of macroeconomic conditions and forecasts.

- ⁴²Sep 4 2019 5206.0 Australian National Accounts: National Income, Expenditure and Product, Jun 2019, Australian Bureau of Statistics, abs.gov.au
- ⁴³Sep 4 2019 Australia GDP Growth Rate, Trading Economics tradingeconomics.com
- ⁴⁴Sep 4 2019 Australia GDP Growth Rate, Trading Economics tradingeconomics.com
- ⁴⁵Jul 2 2019 Statement by Philip Lowe, Governor: Monetary Policy Decision, Reserve Bank of Australia, rba.gov.au
- ⁴⁶Jul 18 2019 Australia Unemployment Rate, Trading Economics tradingeconomics.com
- ⁴⁷Jul 1 2019 Australian PMI®: Manufacturing stumbles in June, Australian Industry Group, aigroup.com.au
- ⁴⁸Jul 3 2019 Australian PSI®: Services sector builds on growth in June, Australian Industry Group, aigroup.com.au
- ⁴⁹Jul 5 2019 Australian PCI®: Construction downturn eases slightly in June, Australian Industry Group, aigroup.com.au
- ⁵⁰Aug 1 2019 6457.0 International Trade Price Indexes, Australia, Jun 2019, Australian Bureau of Statistics, abs.gov.au
- ⁵¹Aug 6 2019 Australia Balance of Trade, Trading Economics tradingeconomics.com
- ⁵²Jul 2 2019 Statement by Philip Lowe, Governor: Monetary Policy Decision, Reserve Bank of Australia, rba.gov.au
- ⁵³Sep 2 2019 Capital Market Yields, Reserve Bank of Australia, rba.gov.au
- ⁵⁴Sep 3 2019 Indicator Lending Rates, Reserve Bank of Australia, rba.gov.au
- ⁵⁵Aug 30 2019 Bank Lending Classified by Sector, Reserve Bank of Australia, rba.gov.au
- ⁵⁶Nov 12 2018 Australian Government Credit Ratings, Fitch fitchrating.com
- ⁵⁷May 6 2019 Australian major banks' overview, KPMG kpmg.com

58

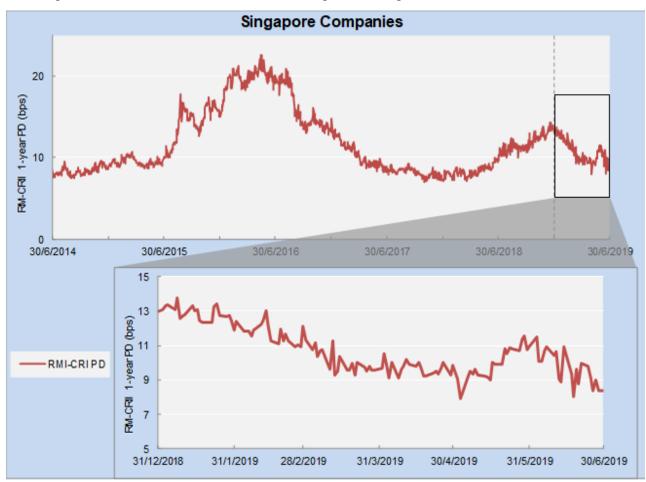
⁵⁹May 6 2019 Australian major banks' overview, KPMG kpmg.com

⁶⁰May 6 2019 Australian major banks' overview, KPMG kpmg.com

⁶¹May 6 2019 Australian major banks' overview, KPMG kpmg.com

Singapore Companies

The RMI-CRI aggregate PD for Singapore firms increased slightly from 8.18bps in Q1 2019 to 7.16bps in Q2 2019. The economy grew by 0.1% on a YoY basis. The slower growth rate was due mainly to the contraction of precision engineering and electronics clusters. Data from June shows that the total merchandise trade and industrial production decreased. Furthermore, the exports plunge 17.3% in June for biggest drop in over 6 years and manufacturing PMI also recorded the lowest reading since August 2016.



Economy

- The Singapore economy grew 0.1% on an annual basis in Q2 2019, a slowdown from 1.1% in the previous quarter. Weighing down on overall growth was a contraction in the key manufacturing sector, which shrunk 3.8% on a year-on-year basis in the second quarter on the back of output declines in the precision engineering and electronics clusters. The services producing industries grew by 1.2% on a year-on-year basis in the second quarter, unchanged from the previous quarter.⁶²
- Singapore's Consumer Price Index for all items decreased to 100.60 Index points in June 2019 from 100.80 Index Points in May 2019. Smaller declines in private road transport and accommodation costs year-on-year contributed to this, the release said. Core inflation, which excludes changes in the price of accommodation and private road transport, increased 1.20% in June 2019 over the same month in the previous year, mainly due to smaller increases in the prices of retail items and electricity and gas more than offset the rise in services and food inflation.⁶³.
- The overall unemployment rate remained at 3.3% in June 2019, as compared to 3.2% in Q1 2019 even as economic growth slowed. Retrenchments in the service industry declined over the quarter, but increased in manufacturing and remained unchanged in construction. Retrenchments are expected to fluctuate in 2019 especially with the

continued US-China trade tensions and several key political elections across the globe which result in natural uncertainties.⁶⁴

- The Purchasing Manager's Index (PMI), an early indicator of manufacturing activity, decreased to 49.6 in June 2019 from 49.9 in May 2019. The Singapore manufacturing PMI has now recorded the lowest reading since August 2016. The decrease in the reading was attributed to contraction in the new orders, new exports, factory output, inventory, and employment level. In contrast, finished goods, input prices and supplier deliveries expanded faster in June 2019 as compared to May 2019. ⁶⁵
- Retail sales in Singapore dropped unexpectedly by 2.1% YoY in May 2019, missing market consensus of a 0.2% rise and after an upwardly revised 1.9% decline in April 2019. This was the fourth straight month of yearly fall in retail trade, with sales decreasing further for furniture & household equipment, optical goods & books, medical goods & toiletries and motor vehicles. ⁶⁶
- Singapore's non-oil domestic exports (NODX) fell 17.3% in June 2019, marking the fourth straight month of YoY decline. Non-electronic exports declined by 12.4% in June 2019, following the 11.1% in May 2019. Non-monetary gold (-50.2%), petrochemicals (-16.7%) and pharmaceuticals (-11.3%) contributed the most to the decline in non-electric shipments. The largest contributors to the NODX decrease were China (-15.8%), the EU (-22.1%), and Hong Kong (-38.2%).⁶⁷

Monetary

 GDP growth in the Singapore economy has eased, bringing the level of output closer to its underlying potential. Despite some pickup in labor costs, inflationary pressures are mild and should remain contained. MAS will therefore maintain the current rate of appreciation of the SGD NEER policy band. There will be no change to its width and the level at which it is centered. This policy stance is consistent with a modest and gradual appreciation path of the SGD NEER policy band that will ensure medium-term price stability.⁶⁸

Funding & Liquidity

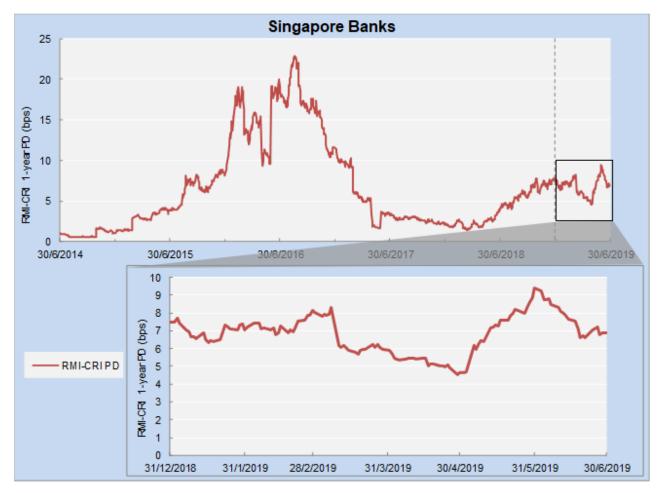
- Yields of 10-year Singapore government bonds decreased to 2.00% on June 30 2019 from 2.07% on March 31 2019.
- Loans and advances of domestic banking units to non-bank customers rose from SGD 676bn in Q1 2019 to SGD 687bn in Q2 2019. Total loans to businesses rose from SGD 411.5bn in Mar 2019 to SGD 423.5bn in Jun 2019 while loans to consumers decreased marginally from SGD 264.7bn in Q1 to SGD 263.6bn in Q2.⁷⁰
- The amount of outstanding sovereign bonds declined from SGD 119.2bn in Q1 2019 to SGD 118.7bn at the end of Q2 2019.⁷¹
- The prime lending rate remained constant at 5.25% in Q2 2019.⁷²

Sovereign Credit Ratings

• All three major rating agencies kept their highest investment grade ratings for Singapore sovereign bonds over Q2 2019.

Singapore Banks

The RMI-CRI 1-year aggregate PD for Singapore banks in Q2 2019 increased to 6.89 bps as compared to 5.97 bps in Q1 2019. As for capital levels and asset quality, Singapore banks remain as some of the most robust banks in the world and is compliant with all capital requirements. We witnessed some slight movements of NPL ratios in Singapore banks over the second quarter.



Profitability

- UOB Group achieved net earnings of SGD 2.22bn for the first half of 2019 ("1H19"), up 8% compared with a year ago. Total income rose 9% to SGD 4.99bn, boosted by strong loan growth and higher trading and investment income. ⁷³
- DBS Group's net profit for first half of 2019 increased 12% to a record SGD 3.25 billion. DBS also reported a SGD 1.60bn of second-quarter earnings. Total income grew 11% to SGD 7.26bn, fuelled by corporate loan growth, a higher net interest margin, record fee income and an improved trading performance. ⁷⁴
- OCBC achieved a net profit after tax of SGD 2.45bn for the first half of 2019, 6% above reported a year ago. This was driven by earnings growth across the Group's banking and insurance business. ⁷⁵
- The amount of loans to non-financial institutions rose from SGD 313bn in Q1 2019 to SGD 319bn in Q2 2019, according to data from the Monetary Authority of Singapore. Total business loans increased by 2.92% to SGD 423.5bn at the end of Q2 2019 from 411.5bn in the previous quarter.⁷⁶

Funding & Liquidity

- Total deposits in Singapore banks rose to SGD 665bn in Q2 2019 from SGD 653bn in Q1 2019. Local currency deposits increased by SGD 11bn to SGD 657bn in Q2. Foreign currency deposits increased by about 7.50% to SGD 7.77bn during Q2 2019.⁷⁷
- Singapore's fixed deposit rates for 3-month and 6-month deposits remained unchanged in Q2 2019 at 0.20% and 0.26% respectively. The 12-month deposit rate increased to 0.57% in Q2 from 0.55% in Q1 2019.⁷⁸

Capital Levels & Regulations

• All three Singapore banks kept their Tier 1 Common Equity ratios to be well above the recommended Basel III guidelines. Banks in Singapore need to have at least a Common Equity Tier 1 Capital Adequacy Ratio of 6.5%. The three banks are all sufficiently covered in this regard with DBS, UOB and OCBC having CET1 CARs of 13.6%, 13.9% and 14.4% respectively.

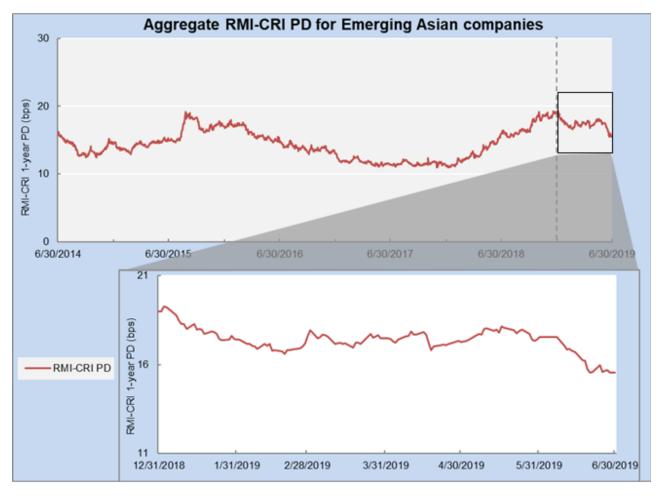
Asset Quality

- Loan quality at local banks generally worsened during Q2. Loans placed under the "special mention" category increased to 2.08% of total exposure at the end of Q2 2019, from 1.85% in the previous quarter. Loans classified as doubtful increased to 0.26% of total exposure. Loans marked as a loss remained decreased to 0.20% in Q2 2019.⁷⁹
- All the three local banks had an unchanged NPL ratio from the previous quarter, standing at 1.5%.^{80,81,82}
- ⁶²July 12, 2019 Singapore's GDP Grew by 0.1 Per Cent in the Second Quarter of 2019, MTI, Singapore https://www.mti.gov.sg/
- ⁶³July 23, 2019 Singapore Consumer Price Index, Trading Economics https://tradingeconomics.com
- ⁶⁴July 26, 2019 Jobless rate for Singaporeans inches up to 3.3% in Q2: MOM, Channel News Asia, https://www.channelne
- ⁶⁵July 2019, Singapore Manufacturing PMI, Trading Economics https://tradingeconomics.com
- ⁶⁶July, 2019 Singapore retail sales, Trading Economics https://tradingeconomics.com
- ⁶⁷July 17, 2019 Singapore exports drop most in 6 years as electronics slump, Channel News Asia, https://www.channelnew
- ⁶⁸Apr 12, 2019 MAS Monetary Policy Statement, MAS, https://secure.mas.gov.sg/
- ⁶⁹June, 2019 SGS Prices and Yields Benchmark Issues, MAS, https://secure.mas.gov.sg/
- ⁷⁰Mar, 2019 Banks: Loans and Advances of DBUs to Non-Bank Customers by Industry, MAS, https://secure.mas.gov.sg/
- ⁷¹June, 2019 Issuance, Redemption and Outstanding Amount, MAS, https://secure.sgs.gov.sg/
- ⁷²June, 2019 Interest Rates of Banks and Finance Companies, MAS, https://secure.mas.gov.sg/msb/
- ⁷³Aug, 2019 UOB Group Reports Record First Half 2019 Earnings of S\$2.22 Billion, UOB, www.uob.com.sg
- ⁷⁴Jul, 2019 DBS first-half net profit rises 12% to record SGD 3.25 billion, return on equity at 13.7%, DBS www.dbs.com.sg
- ⁷⁵Aug, 2019 OCBC Group Half Year 2019 Net Profit Rose 6% Year-on-Year to a Record S\$2.45 billion, OCBC Group, http://www.ocbc.com
- ⁷⁶Jul, 2019 Banks: Loans and Advances of DBUs to Non-Bank Customers by Industry, MAS, https://secure.mas.gov.sg/
- ⁷⁷Jul, 2019 Deposits (excluding S\$NCDs) of DBUs by types of non-bank customers, MAS, https://secure.mas.gov.sg/

- ⁷⁸Jul, 2019 Interest Rates of Banks and Finance Companies, MAS, https://secure.mas.gov.sg/msb/
- ⁷⁹Jul, 2019 Classified Exposures, MAS, https://secure.mas.gov.sg/
- ⁸⁰Aug, 2019 UOB Group Reports Record First Half 2019 Earnings of S\$2.22 Billion, UOB, www.uob.com.sg
- ⁸¹Jul, 2019 DBS first-half net profit rises 12% to record SGD 3.25 billion, return on equity at 13.7%, DBS www.dbs.com.sg
- ⁸²Aug, 2019 OCBC Group Half Year 2019 Net Profit Rose 6% Year-on-Year to a Record S\$2.45 billion, OCBC Group, http://www.ocbc.com

Asia-Pacific - Emerging economies

The RMI-CRI aggregate 1-year PD for listed corporations in emerging Asia, excluding India and China, was mostly stable during Q2 2019, with a drop observed in May onwards. In terms of economic growth, Indonesia's economic acceleration continued in Q2 2019, slightly above market expectations at 5.05%. The growth was mainly driven by government expenditure. The Malaysian economy, as measured by gross domestic product (GDP), expanded 4.9% in the Q2 2019 from a year earlier, driven mainly by household spending growth and continued expansion in services and manufacturing sector, together with the recovery of mining sector. Economic growth in Thailand decelerated to 2.3% YoY in the second quarter of 2019, down from the 2.8% annual expansion logged in Q1 this year and the lowest reading in nearly half a decade, mostly due to a fall in exports coupled with softer growth in household spending, government expenditure and investments.



Indonesian Companies

The NUS-CRI aggregate 1-year PD for Indonesian companies decreased to around 18.85bps at the end of June 2019 from 17.51bps at the end of March 2019. Indonesia's economy experienced a growth of 5.05% YoY in Q2 2019, higher than the market expectation of 4.9%. Indonesia's inflation increased for the second quarter of 2019, with a CPI inflation of 3.32% YoY in Q2 2019 from 2.48% in Q1. The trade balance improved to USD 0.30bn surplus in June 2019, from the USD 0.21bn surplus in May and USD 2.28bn deficit in April 2019. This was mainly due to growth in non-oil and gas exports coupled with flatter non-oil and gas imports. For the period from April-June 2019, Indonesia's trade balance recorded USD 1.77bn deficit cumulatively.



Economy

The Indonesian economy expanded by 5.05% YoY in Q2 2019, slightly slower compared to the previous period of 5.07% but still slightly above market expectations of 4.9%. This was the weakest expansion pace recorded since Q2 2017. Government spending was the main driver behind the growth of the economy in this quarter (at 8.23% compared to 5.21% in Q1 2019) while private consumption grew moderately and fixed investment recorded slowest growth since 2017 (at 5.17% and 5.01% compared to 5.-2% and 5.03% in Q1 2019).⁸³

- The Consumer Price Index (CPI) of Indonesia reached 3.32% in June. Respectively, the inflation of volatile food reached 4.91% (YoY), core inflation at 3.25% (YoY), inflation of administered prices at 1.89% (YoY). Going forward, the inflation is projected to stay at around 3.5% throughout 2019. Therefore, it is important that the central and regional governments as well as Bank Indonesia strengthen their coordination to keep inflation at check.⁸⁴
- Indonesia's trade balance recorded a surplus of USD 0.30bn in June 2019, improving from a trade surplus of USD 0.21bn in the previous month. This was primarily supported by the acceleration of non-oil and gas exports beyond non-oil and gas imports. The oil and gas trade deficit narrows slightly to USD 0.97bn in June 2019 compared to the previous month while non-oil and gas trade balance surplus improved to USD 1.26bn. The improvement was attributable to a surge of non-oil and gas exports and a decline in oil and gas trade deficit. Moving forward, Bank Indonesia will continue to coordinate with the government to monitor global and domestic economic developments to strengthen external sector resilience.⁸⁵
- According to Nikkei Indonesia Manufacturing Purchasing Managers Index (PMI), Indonesia's PMI fell in June to 50.6, from 51.6 in May. Softer expansions in output and new orders for three months, weakest employments in the year and a less enthusiastic business sentiment contributed to the slowing of the headline index. ⁸⁶

Monetary

 On 17th and 18th July 2019, the Bank Indonesia (BI) Board of Governors agreed to lower the BI 7-day repo rate, deposit facility rate and lending facility rate by 25bps to 5.75%, 5.00% and 6.50% respectively. The decision is consistent with the current low inflation expectation and the need to build growth momentum in a global easing financial market situation and heightened uncertainty through ensuring adequate liquidity in the financing sector. Looking forward, Bank Indonesia will continue to coordinate with the Government to maintain economic stability, stimulate domestic demand and attracting foreign capital inflows. ⁸⁷

Funding & Liquidity

- The yield of Indonesia's 5-year bonds decreased from 7.16% at the end of March 2019 to 6.87% at the end of June 2019. Similarly, Indonesia's 10-year government bond yield decreased from 7.67% at the end of Q1 2019 to 7.37% at the end of Q2 2019.^{88,89}
- Indonesia's official reserve assets position stood at USD 123.8bn at the end of June 2019, higher than the end of May 2019 level registered at USD 120.3bn. The increase was primarily attributable to oil and gas, other foreign exchange receipts and the government's external debt withdrawal. Bank Indonesia considered the official reserve assets adequate in line with the confidence in the stability and upbeat outlook of the domestic economy as well as positive export performance.⁹⁰

 External debt grew 8.7% (YoY) in March 2019. Long-term external debt remained dominant in Indonesia's external debt and stood at USD 335.15bn or 86.4% of total external debt. Long term external debt consisted of public sector external debt amounting to USD 190.01bn (56.7% of total long-term external debt) and private sector external debt amounting to USD 145.14bn (43.3% of total long-term external debt). Short-term external debt amounted to USD 52.73bn (13.6% of total external debt), comprised of private sector external debt amounting to USD 52.28bn (99.1% of total short-term external debt) and public sector external debt amounting to USD 454mn (0.86% of total short-term external debt). The ratio of external debt to GDP is stable at 36.5%.⁹¹

Politics

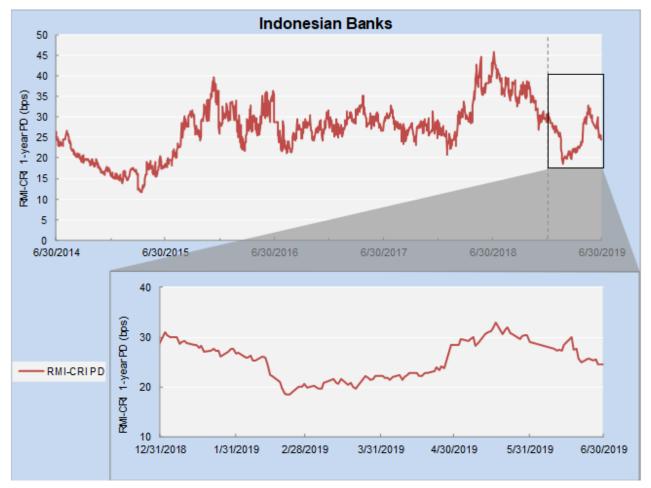
• After the release of the official vote count by the Indonesia General Elections Commission, protesters took down the streets in in May 22, 2019. What began as a peaceful March escalated to become the worst violence act to grip the city since the 1998 riot that brought Suharto's downfall. Nine people were killed and hundreds injured in the clash between police and supporters of presidential candidate Prabowo Subianto. Following the petition filed by Prabowo Subianto disputing the official result of the election, the Constitutional Court in Jakarta unanimously upheld the re-election of President Joko Widodo, dismissing the appeal on the base of a lack of evidence. Moving forward, Jokowi's budget for 2020 is aiming to protect the economy from a global slowdown through investments in infrastructure, boosts in manufacturing and productivity as well as developing processing industries for commodities. The president is also pushing for reforms to further bolster foreign investments in the country through lower corporate taxes, easing of labor laws and lifting curbs on foreign ownership in more industries.

Sovereign Credit Ratings

 S&P upgraded its ratings on the local currency long term bonds of Indonesia to BBB from BBB- in the backdrop of a "strong economic growth prospects" and prudent fiscal policy while Moody's and Fitch kept theirs at Baa2 and BBB respectively. All three credit rating agencies have maintained their stable outlook on Indonesia's sovereign debt. This reflected the Indonesian government's consistent effort to ramp up productive spending and attract foreign investments.^{95,96}

Indonesian Banks

The NUS-CRI aggregate 1-year PD for Indonesian banks decreased to 19.7bps at the end of June 2019 from 20.53bps at the end March 2019. Loans extended by Indonesian banks grew 9.92% in June from a year earlier. Meanwhile, gross non-performing loans (NPL) stood at 2.6%.⁹⁷



Profitability

 Indonesian banks in general were still profitable in Q2 2019 despite experiencing contraction. Three of the three largest majority state-owned Indonesian banks, Bank Mandiri, Bank Rakyat Indonesia and Bank Negara Indonesia reported a QoQ decrease in net income of 12.93%, 1.77% and 13.38% respectively. ^{98,99,100}

Funding & Liquidity

- The liquidity ratio (liquid asset/bank deposit) of Indonesian banks stood at 18.5% in May 2019.¹⁰¹
- The Jakarta 3-month interbank rate decreased from 7.21% at the beginning of Q2 2019 to 6.95% by the end of Q2 2019. Similarly, the 1-month interbank rate decreased from 7.01% at the beginning of Q2 2019 to 6.77% by the end of Q2 2019.¹⁰²

34

Regulation

On July 1, 2019, Indonesia's central bank, Bank Indonesia (BI) decided to lower the rupiah reserve requirement for conventional and Islamic banks by 50bps to 6.0% and 4.5% respectively. Following that, BI cut its benchmark interest rate by 25bps to 5.75% on July 18, 2019, in an attempt to stimulate economic growth which has been sluggish for most parts of the year. BI's move came ahead of the US Federal Reserve's and is the first cut in nearly two years. BI is expected to cut interest rates for a second time this year, but precise timing is still unknown. The first and subsequent expected cuts came amidst the building pressure to support the country's economic growth in the face of rising US-China trade tension.^{103,104}

Asset Quality

According to Bank Indonesia, the financial system remained stable. Capital adequacy ratio and liquidity of Indonesian banks, as of May 2019, stood at 22.3% and 18.5% respectively, while non-performing loans (NPL) stood at 2.6% (gross) or 1.2% (net). Bank Indonesia projects credit growth in 2019 at 10.0-12.0% (YoY). Moving forward, Bank Indonesia believes there is an adequate space to expand credit growth without disrupting the financial system stability considering that the credit cycle is below the optimal level with an outlook of solid demand.¹⁰⁵

- ⁸⁵Aug 15, 2019, Global Headwinds Impact Trade Balance in July 2019, Bank Indonesia, http://www.bi.go.id
- ⁸⁶Jul 01, 2019, Indonesian manufacturing sector eased in June, Markit Economics, http://www.markiteconomics.com

⁸⁷Jul 18, 2019, BI 7-Day Reverse Repo Rate Lowered 25 bps to 5,75%, Maintained Stability, Driving Growth Momentum, Bank Indonesia, http://www.bi.go.id

- ⁹⁴Jul 12, 2019, Jokowi Vows Sweeping Indonesia Reforms, Bloomberg, https://www.bloomberg.com
- ⁹⁵Aug 26, 2019, Jokowi Picks Borneo for New Indonesia Capital, Bloomberg, https://www.bloomberg.com
- ⁹⁶Aug 30, 2019, Violent Papua protests undermine Jokowi's costly charm offensive, Straits Times, https://www.straitstimes
- ⁹⁷May 31, 2019, Indonesian Sovereign Rating: Market Data and Info, Bank Indonesia, http://www.bi.go.id

⁹⁸May 31, 2019, Indonesia Wins S&P Upgrade as Jokowi Victory Fuels Growth Bets, Bloomberg, https://www.bloomberg.c

- ⁹⁹Jul 24, 2019, Indonesia Loan Growth, Trading Economics, http://www.tradingeconomics.com
- ¹⁰⁰Mar 31, 2019, Bank Mandiri (Persero), The Wall Street Journal, http://quotes.wsj.com
- ¹⁰¹Mar 31, 2019, Bank Rakyat Indonesia, The Wall Street Journal, http://quotes.wsj.com
- ¹⁰²Mar 31, 2019, Bank Negara Indonesia, The Wall Street Journal, http://quotes.wsj.com

⁸³May 06, 2019, Indonesia GDP Annual Growth Rate, Trading Economics, http://www.tradingeconomics.com

⁸⁴Jul 01, 2019, Inflation in June 2019 Remains Controlled, Bank Indonesia, http://www.bi.go.id

⁸⁸Jun 28, 2019, Indonesia 5-Year Bond Yield, Investing, http://www.investing.com

⁸⁹Jun 28, 2019, Indonesia 10-Year Bond Yield, Investing, http://www.investing.com

⁹⁰Jul 05, 2019, Official Reserve Assets Increased, Bank Indonesia, http://www.bi.go.id

⁹¹Jun 17, 2019, External Debt Statistics of Indonesia - June 2019, Bank Indonesia, http://www.bi.go.id

⁹²May 22, 2019, Protesters Killed as Indonesia Post-Election Rally Turns Violent, Bloomberg, https://www.bloomberg.com

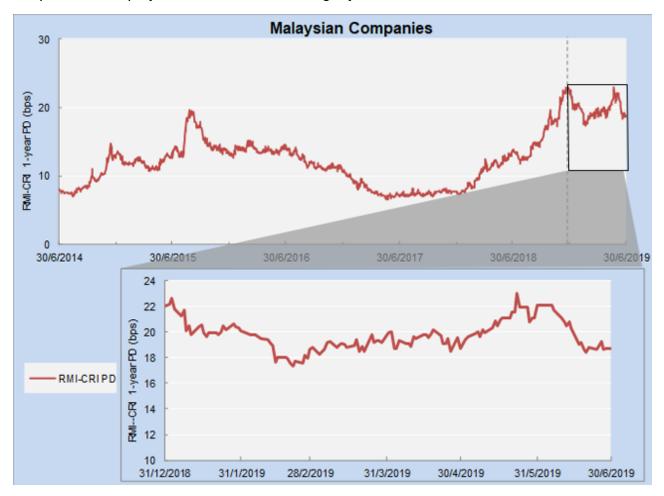
⁹³Jun 27, 2019, Indonesia Court Rejects Appeal Against Jokowi's Re-Election, Bloomberg, https://www.bloomberg.com

¹⁰⁴Jul 18, 2019, BI 7-Day Reverse Repo Rate Lowered 25 bps to 5,75%, Maintained Stability, Driving Growth Momentum, Bank Indonesia, http://www.bi.go.id

¹⁰⁵Mar 31, 2019, Bank Rakyat Indonesia, The Wall Street Journal, http://quotes.wsj.com

Malaysian Companies

The NUS-CRI aggregate 1-year PD for Malaysian fell marginally to 18.7bps over Q2 2019 from 19.2bps in Q1 2019. Malaysia's economy grew by 4.9%, a slightly faster pace compared to Q1 2019. Exports decreased from 2.5% of GDP in Q2 2019 to 0.1% in Q2 2019, mainly due to modest global demand and a slowdown in exports of electronic equipment and parts. Unemployment rate decreased slightly to 3.3%. ¹⁰⁶



Economy

GDP of Malaysia growth increased slightly to 4.9% YoY in Q2 2019 from 4.5% in Q1 2019 due to global headwinds. GDP growth is mainly driven by household spending growth and continued expansion in the services and manufacturing sectors, together with the recovery of the mining sector. The mining sector recovered from -2.1% in Q1 2019 to 2.9% in Q2 2019. Headline inflation rose to 0.6% while core inflation remained unchanged at 1.6%. ¹⁰⁷

- Malaysia's CPI rose by 1.5% on a YoY basis in June 2019. Among the major groups which recorded increases were the indices for Furnishings, Household Equipment & Maintenance (+3.1%); Recreation Services & Culture (+2.7%); Housing, Water, Electricity, Gas & Other Fuels (+2.3%); and Food & Non-Alcoholic Beverages (+2.3%). The only two groups that experienced decreases were the Transport (-2.1%) and Clothing & Footwear (-0.7%).¹⁰⁸
- Malaysia's unemployment rate decreased slightly to 3.3% and the labour force participation rate in Malaysia increased to 68.6% in June 2019. ¹⁰⁹
- In Q2 2019, Malaysia exports recorded a marginal increase of 0.2% YoY to MYR 245.5bn. Imports decreased 1.2% YoY to MYR 215.3bn. On a YoY basis, exports grew due to higher exports to India (MYR +2.0bn), the United States (MYR +1.7bn), Singapore (MYR +1.3bn), Taiwan (MYR +1.2bn) and the Philippines (MYR +1.1bn). On a YoY basis, lower imports were mainly from Singapore (MYR -2.9bn), Switzerland (MYR -1.2bn) and China (MYR -1.1bn).¹¹⁰

Monetary

- Bank Negara Malaysia reduced the Overnight Policy Rate (OPR) by 25bps to 3.00% on May 7, 2019, citing a moderate global economic expansion, with unresolved trade tensions remaining a source of risk. Despite facing the downside risks opf slower global growth and trade tensions, the Malaysian economy is projected to remain on the steady growth path for the rest of 2019 with continued support from household spending.¹¹¹
- In June 2019, broad money (or M3), which measures the money supply, increased by 5.14% YoY to MYR 1.91tn.¹¹²
- Driven by non-resident inflows from the equity market, the ringgit appreciated by 1.3% against the USD in June 2019.¹¹³

Funding & Liquidity

- The market indicative yield on the 10-year Malaysia government securities fell to 3.64% in June 2019, compared to 3.77% in March 2019. The same yield measure on 5-year Malaysia government securities decreased to 3.43% from 3.54% over the same period.¹¹⁴
- Total bank loans approved decreased from MYR 35.70bn a year ago to MYR 34.53bn in June 2019. Among those decreased are loans approved to finance, insurance and business activities sector (from MYR 3.65bn a year ago to MYR 3.44bn in June 2019); manufacturing sector (from MYR 3.05bn to MYR 1.64bn); wholesale, retail trade, restaurants and hotel sector (from MYR 2.47bn to MYR 2.18bn); and real estate (from MYR 2.05bn to MYR 1.82bn). Meanwhile, loans approved to the electricity, gas and water supply segment increased from MYR 169.8mn to MYR 1.95bn in the same period; and those to the construction segment increased from MYR 1.95bn to 2.52bn.¹¹⁵

Regulations and Politics

The first trial of Malaysia's former Prime Minister Najib Rajak that began in April 2019 concluded on August 27, 2019. The High Court began the second trial on August 28, 2019, and a ruling is planned to be made on November 11, 2019. In the first trial, Najib faced six charges of money laundering and criminal breach of trust, where a supposed MYR 42mn loan received by SRC International – a former subsidiary of state fund 1MDB – was channeled into Najib's personal accounts used for private spending. In the second one, Najib is facing 25 charges of abuse of power for receiving illegal transfers totaling MYR 2.3bn between 2011 and 2014. Najib has been maintaining his innocence and dismisses the charges as politically motivated.¹¹⁶

Dr Mahathir Mohamad's victory in the May 9, 2018, election came with an agreement within the Pakatan Harapan (PH) – the ruling government – coalition that after two years, People's Justice Party leader Anwar Ibrahim will take over as Prime Minister. While his latest statement confirmed his adherence to the succession plan, the Malaysian Prime Minister maintains a non-committal stance over the deadline. Following his council meeting, Dr Mahathir said on August 29, 2019, that the prime minister-in-waiting Anwar Ibrahim will not be joining the PH coalition government as there are currently no vacancies in the Cabinet. ¹¹⁷

Sovereign Credit Ratings

• The Malaysian government maintained its sovereign credit ratings at all three rating agencies. The country was rated at A3, A- and A- respectively by Moody's, S&P and Fitch. All three agencies assigned a stable outlook for their ratings on Malaysia. ¹¹⁸

Malaysian Banks

The NUS-CRI aggregate 1-year PD for Malaysian banks increased slightly to 7.95bps in Q2 2019, as the banking system remained well capitalized despite slight tightening in lending. Stable total bank deposits continue to ensure liquidity in Malaysian banks. The financials of Malaysian banks remained in the safety zone.



Lending

- The amount of bank loan applications has decreased to MYR 65.15bn in June from MYR 72.63bn in March. Loan application for finance, insurance and business activities had decreased to MYR 4.84bn in June 2019 from MYR 5.38bn in March. ¹¹⁹
- The base lending rate of Malaysian commercial banks fell to 6.71 in June 2019 from 6.91% in March 2019. The weighted base rate also decreased to 3.68% in June 2019 compared to 3.92% in March 2019. ¹²⁰

Funding & Liquidity

- Total bank deposits increased to MYR 1.938tn in June 2019 from MYR 1.927tn in March 2019. The repurchase agreement decreased to MYR 22.7bn in June 2019 from MYR 30.3bn in March 2019.¹²¹
- Savings deposit in banking system increased to MYR 164.85bn in June 2019 from MYR 161.72bn in March 2019. ¹²²

Capital Levels & Regulations

 The Common Equity Tier 1 Capital ratio for Malaysian banks decreased to 13.4% in June 2019 from 13.7% in March 2019. Likewise, the Tier 1 Capital Ratio decreased from 14.4% to 14.1% in the same period.¹²³

Asset Quality

The value of impaired loans at Malaysian banks increased to MYR 27.12bn in June 2019 from MYR 25.30bn in March 2019. The ratio of net impaired loans to net total loans increased from 0.92% to 1.02% in the same period.¹²⁴

¹⁰⁶Aug 16, 2019, Economic and Financial Developments in Malaysia in the Second Quarter of 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹⁰⁷Aug 16, 2019, Economic and Financial Developments in Malaysia in the Second Quarter of 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹⁰⁸Jul 24, 2019, Consumer Price Index Malaysia June 2019, Department of Statistics Malaysia, https://www.statistics.gov.m

¹⁰⁹Aug 09, 2019, Key Statistics of Labour Force in Malaysia June 2019, Department of Statistics Malaysia, https://www.statistics.gov.my

¹¹⁰Aug 02, 2019, Malaysia External Trade Statistics June 2019, Department of Statistics Malaysia, https://www.statistics.gov

¹¹¹Jul 09, 2019, Monetary Policy Statement, Bank Negara Malaysia, http://www.bnm.gov.my

¹¹²Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹¹³Jul 31, 2019, Monthly Highlights – June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹¹⁴Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹¹⁵Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹¹⁶Aug 28, 2019, SRC trial: Court to decide on Najib's defence on Nov 11, Straits Times, https://www.straitstimes.com

¹¹⁷Jul, 2019, No vacancy' in Malaysian Cabinet, says PM Mahathir, Channel News Asia, https://www.channelnewsasia.com

¹¹⁸Jul, 2019, Rating: Malaysia Credit Rating, CountryEconomy, https://countryeconomy.com/

¹¹⁹Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹²⁰Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹²¹Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

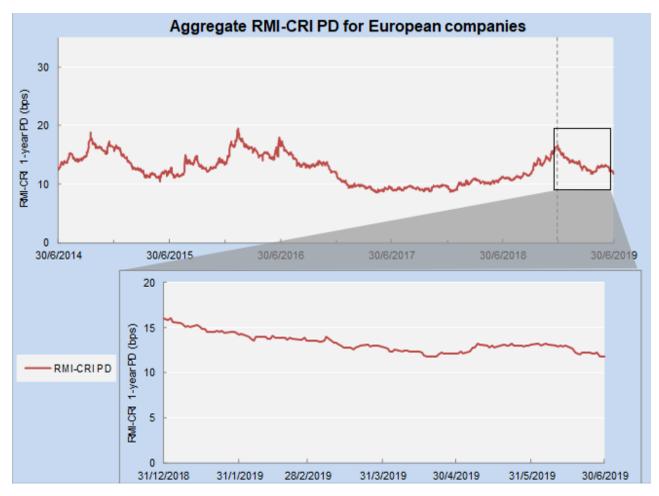
¹²²Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹²³Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

¹²⁴Jul 31, 2019, Monthly Highlights and Statistics June 2019, Bank Negara Malaysia, http://www.bnm.gov.my

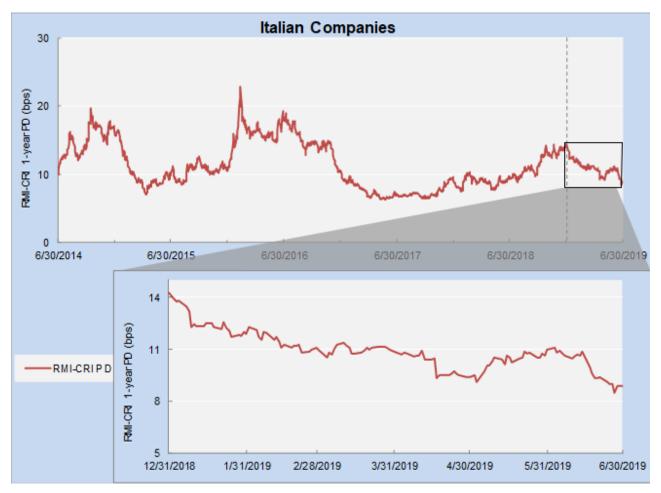
Europe

European firms ended Q2 2019 with a slightly higher aggregate 1-year probability of default (PD) from the end of Q1 2019. Economic data showed that the European economy expanded more than expected in the first quarter of the year and unemployment rate remained stable at 7.8%. The European Central Bank (ECB) announced that a new series of quarterly targeted longer-term refinancing operations (TLTRO-III) will be launched, starting in September 2019 and ending in March 2021, each with a maturity of two years. These new operations will help to preserve favourable bank lending conditions and the smooth transmission of monetary policy.



Italian Companies

The NUS-CRI aggregate 1-year PD for Italian companies decreased during the second quarter of 2019, from 10.85bps at the end of the year's first quarter to 9.04bps by the end of June. Q2 saw credit outlook of Italian companies improve despite political uncertainty. The economy stagnates after marginal growth in Q1 2019 and emerging from the recession it entered in Q4 2018. With global economies slowing down, multiple analysts have predicted economic growth stagnation for export-oriented Italy in Q2 2019.



Economy

- The GDP of Italy is estimated to remain unchanged in Q2 2019 as compared to Q1 2019. The economy stayed unchanged year-over-year. The lack of growth is attributed to the decrease of value added in agriculture, services as well as in industry and an increase in services. The stagnation followed a marginal growth in the first quarter of the year, emerging from a short-lived technical recession in the second half of 2018. 125,126
- Italy's unemployment rate was 9.7% in June 2019, a slight decrease over May 2019. The country ended the quarter with 23.399mn people employed. 2.525mn people were unemployed, a 1.1% decrease over the previous month. Youth unemployment (aged 15-24) was 28.1%, down 6.2% from the previous month.¹²⁷
- Italy's manufacturing Purchasing Managers' Index (PMI) a single-figure measure of developments in overall business conditions – decreased moderately to 48.4 in June 2019, from 49.7 in May 2019. This marks the ninth month running for which the index posted below the 50.0 no-change mark and its lowest overall since March. Both output and new orders underwent further reductions for the eleventh consecutive month and manufacturers' confidence dipped slightly from May, but was nonetheless positive.¹²⁸

- Italy's services PMI returned to growth in June, as a faster rise in new orders encouraged the increase of business activity. Italy's services PMI registered 50.5 in June, up from 50.0 in May although remained lower than the 53.10 in March. On the overall, the growth in staffing numbers quickened from May to the fastest since August 2007, as well as continuing the trend of payroll expansion. Selling prices among Italian service providers continued their fall for the seventh consecutive month. Overall, sentiment improved and optimism was the highest in 14 months among those surveyed.¹²⁹
- The European Commission Italy Economic Sentiment Indicator (ESI), which assesses the economic outlook of EU countries as a weighted average of the industrial, services, construction, retail and consumer sectors, reported a reading of 100.0 in April, 101.7 in May and 100.2 in June. These figures are slightly lower than the 101.7 average reported over Q1 2019.¹³⁰
- The confidence climate in June 2019 worsened from 111.6 to 109.6. All components lowered: economic from 125.5 to 120.9, personal from 107.4 to 105.6, current from 109.6 to 107.6 and future component from 115.6 to 112.3. The balance concerning expectations on production in manufacturing decreased from 5.9 to 5.1. The balance on expectations on employment in construction decreased from 5.6 to 2.0. Market services balances on business worsened from 6.2 to 5.5.¹³¹

Funding & Liquidity

- Yield on 10-year Italian bonds decreased from the 2.48% it had reached on at the end of March 2019, reaching 1.67% by the end of June. This was their lowest yield since May 2018. Italian yields are the second highest in the eurozone after Greece, attracting investors hunting for positive return in a negative yield environment. ¹³²
- Interest rates on loans (other than bank overdrafts) to non-financial corporations fell slightly during Q2 2019, from 2.10% in March 2019 to 2.08% in June 2019. Bank interest rates (including revolving loans, overdrafts and extended credit card credit) to corporations dipped slightly from 2.98% in March 2019 to 2.92 at the end of June 2019. Loans for house purchases decreased from 1.82% to 1.77% in the second quarter.^{133,134,135}
- Preliminary estimates for outstanding loans to non-financial institutions stood at 669079. Total outstanding loans overall decreased by 1.01% from the previous quarter.¹³⁶

Politics

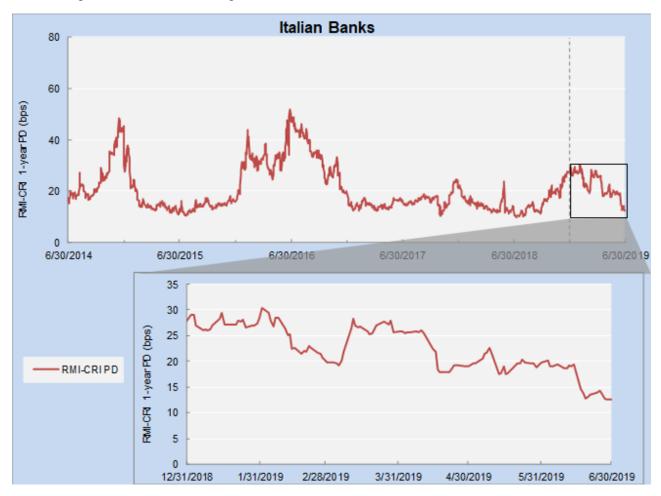
- Italy's government expected the country to underperform its euro peers, lowering its growth forecast to 0.1% while the euro area expands at 1.2% rate. Despite the improvement in Q1 2019, economic activity is stagnating, especially due to slowing momentum of the industrial cycle. Italy barely complied to the debt standard set by the European Central Bank after its leader, Deputy Premier Matteo Salvini, promised big tax cuts.¹³⁷
- Italy's latest published public accounts were that of Q1 2019. Total revenues for General government grew by 0.4% while total expenditures grew by 0.3% compared to the same quarter of the previous year. The growth of total revenues results from an increase in current revenues (+1.6%) and a slight decrease in total capital revenues (-8.5%). The trend in expenditure results from an increase in current expenditures (+3.0%) and a fall in capital expenditures (-4.5%). The General government deficit (net borrowing) to GDP ratio was 4.1% in the first quarter of 2019, as compared to the 4.2% in the first quarter of 2017. Italy's debt-to-GDP ratio is set to stand at 134.0% based on latest data in Q1 2019.^{138,139}

Sovereign Credit Ratings

 Moody's and S&P maintained their ratings at Baa3 with a stable outlook and BBB with a negative outlook respectively. Fitch revised its ratings to BBB with a stable outlook in February 2019.¹⁴⁰

Italian Banks

The NUS-CRI aggregate 1-year PD for Italian banks decreased during the second quarter of 2019, from 26.68bps at the end of the year's first quarter to 15.21bps by the end of June. Interest rates to firms and to households remained near multiple-year lows. Nevertheless, the demand for business lending slowed down. In the meantime, asset quality at Italian banks improved slightly, with the ratio of new non-performing loans to outstanding loans decreasing. Meanwhile, coverage ratio for Italian banks worsened to 53.1%.



Profitability

Italy's biggest bank Unicredit posted a 0.4% and -8.9% growth for its YoY and QoQ net profits respectively. Its gross non-performing exposure ratio is at 7.0% with a coverage ratio of 61.0% while its CET1 ratio decreased to 12.08% from 12.25% in Q41 2019. For Intesa Sanpaolo, another major Italian bank, its net interest income is down 4.2% as compared to a year ago while its CET1 ratio improved to 13.9% from 13.1% in March 2019. Intesa's loans loss provisions increased to EUR 554mn in Q2 2019 from EUR 369mn in Q1 2019. Based on its Q2 results, Intesa is firmly on track for meetings its fiscal targets in 2019. ^{141,142}

Funding & Liquidity

- The 12-month percentage change in deposits of funds by Italian residents was 3.55% in June 2019, while for the total deposits of non-domestic residents it was 6.09%. Refinancing from Eurosystem decreased by 2.05% as compared to March 2018, while debt securities issued by banks decreased by 4.88% as compared to the same period last year.¹⁴³
- Interest charged on business loans (other than bank overdrafts) of over EUR 1mn to non-financial institutions was 0.92% in June 2019, marginally higher than the 0.91%

reported in March 2019. Similar loans with collateral and/or guarantees were charged with an interest rate of 1.39%, up from the 1.17% charged in March 2019. Bank interest rate on loans to sole proprietors was 3.03% in June 2019, down from 3.11% in March 2019.¹⁴⁴

- The Bank of Italy's liabilities to Euro-area financial counterparties remained relatively stable at to EUR 103,564.8bn in June 2019 from 100,211.4bn in March 2019.¹⁴⁵
- Italian bank liabilities towards the Eurosystem remained at EUR 243bn May 2019 as in February 2019. Lenders decreased their funds held at the ECB by 2.1% YoY in February 2019 while capital and reserves decreased to EUR 373bn during the three months ending February 2019.¹⁴⁶
- According to the latest bank lending survey, Italian banks reported that in the first quarter of 2019, credit supply conditions tightened slightly, mainly due to a worsening macroeconomic outlook and an increase in funding costs. Lending to firms remained unchanged.¹⁴⁷

Asset Quality

- The Bank of Italy said that the ratio of new non-performing loans to outstanding loans continued to fall, from 1.4% in the first quarter of 2019 to 1.3% at the end of June 2019.¹⁴⁸
- Share of non-performing loans to total loans rose slightly from 8.3% to 8.4% in Q1 2019. The coverage ratio at Italian banks decreased from 53.4% to 53.1% between Q4 2019 and Q1 2019.¹⁴⁹

- ¹³¹Jun 27, 2019, Consumer and business confidence, Italian National Institute of Statistics, istat.it
- ¹³²Jul 11, 2019, Italy Bond Rally Steams Ahead as Investors Snap Up Latest Offer, Bloomberg, https://www.bloomberg.com
- ¹³³Jun, 2019, Italian MFIs: Interest per annum on new loans to non-financial corporations, ECB, sdw.ecb.europa.eu
- ¹³⁴Jun, 2019, Italian MFIs: Revolving loans & overdrafts, convenience & extended credit card credit to corporations, ECB, sdw.ecb.europa.eu
- ¹³⁵Jun, 2019, Italian MFIs: Cost of borrowing for households for house purchase, ECB, sdw.ecb.europa.eu
- ¹³⁶Jun, 2019, Italian MFIs: Total loans to non-financial corporations, ECB, sdw.ecb.europa.eu
- ¹³⁷Jul 12, 2019, Italy to Keep Uderperforming Peers After 2019 Stagnation, Bloomberg, https://www.bloomberg.com
- ¹³⁸Jun 26, 2019, Quarterly non-financial accounts and profits of non-financial corporations, Italian National Institute of Statistics, istat.it
- ¹³⁹Jun, 2019, General Government gross debt quarterly data, Eurostat, ec.europa.eu/eurostat

¹²⁵Apr 30, 2019, Preliminary estimate of GDP, Italian National Institute of Statistics, istat.it

¹²⁶Jun 20, 2019, Italy Economy Seen Contracting again, in Blow to Populists, Bloomberg, https://www.bloomberg.com/

¹²⁷Apr 30, 2019, Employment and unemployment: provisional data, Italian National Institute of Statistics, istat.it

¹²⁸Jul 1, 2019, Italian manufacturing operating conditions deteriorate for ninth consecutive month in June, Markit, https://www.markiteconomics.com/

¹²⁹Jul 3, 2019, Service sector activity returns to growth in June, Markit, https://tradingeconomics.com/

¹³⁰Jun 27, 2019, Economic sentiment indicator for Italy, Eurostat, ec.europa.eu/eurostat

¹⁴⁰Jul, 2019 Rating: Italy Credit Rating, CountryEconomy, https://countryeconomy.com/

¹⁴¹Aug 7, 2019, UniCredit: a pan-European winner. 2Q19 and 1h19 Group Results, UniCredit, https://www.unicreditgroup.e
 ¹⁴²

¹⁴³Jun, 2019, [TSC40600] Bank funding (12-month percentage changes), Banca Italia, https://infostat.bancaditalia.it

¹⁴⁴Jun, 2019, Bank interest rates on euro loans to non-financial corporations, Banca Italia, http://www.bancaditalia.it

¹⁴⁵Jun, 2019, Bank of Italy balance sheet: liabilities - liabilities to euro area financial counterparties denominated in euros, Banca Italia, http://www.bancaditalia.it

¹⁴⁶Jul, 2019, Economic bulletin - July 2019, Banca Italia, http://www.bancaditalia.it

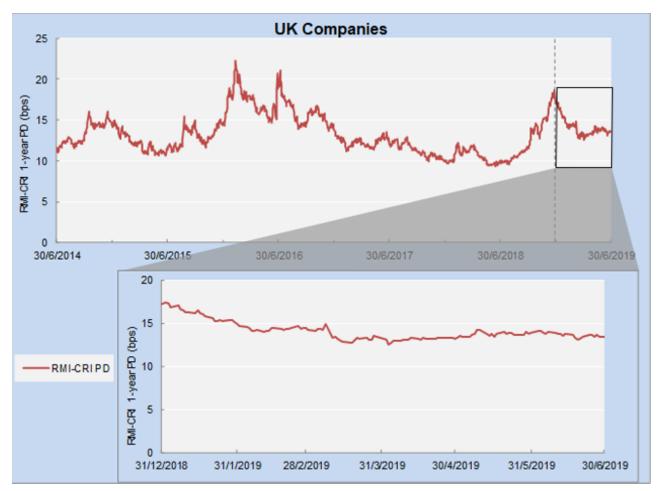
¹⁴⁷Jul, 2019, Economic bulletin - July 2019, Banca Italia, http://www.bancaditalia.it

¹⁴⁸Jul, 2019, Economic bulletin - July 2019, Banca Italia, http://www.bancaditalia.it

¹⁴⁹Jul, 2019, Economic bulletin - July 2019, Banca Italia, http://www.bancaditalia.it

UK Companies

The aggregate RMI-CRI 1-year PD for companies in the UK remained stable in Q2 2019 but displayed a subtle downward sloping trend, from 13.04bps in Q1 to 13.33 bps in Q2. GDP contracted by 0.2%. Consumer spending for the quarter declined when compared to same quarter one year ago, in line with a marked drop in consumer confidence. Trade deficit narrowed on the account of falling imports of unspecified goods (including non-monetary gold), chemicals, and machinery and transport equipment. The UK continues to be hassled by the uncertainty brought about by Brexit and its complex dealings on various areas, such as trade, migration, etc.



Economy

- UK (GDP) contracted by 0.2% in Q2 2019, having grown by 0.5% in the first quarter of the year. This is weaker than market expectations and the latest Bank of England forecast, which were for a flat Q2. The path of GDP and some of its components has been particularly volatile through the year so far, largely reflecting changes in timing of activity related to the UK's original planned exit date from the European Union in late-March. ¹⁵⁰
- The UK unemployment rate was estimated at 3.9%, lower than a year earlier (4.0%). Estimated annual growth in average weekly earnings for employees in Great Britain increased to 3.7% for total pay (including bonuses) and 3.9% for regular pay (excluding bonuses). ¹⁵¹
- Visa's UK Consumer Spending Index, compiled by IHS Markit, rounded off a disappointing second quarter, with expenditure down -1.4% in June compared to a year ago. On an annual basis, spending fell -2.1% in Face-to-Face categories. Meanwhile a -0.8% reduction in eCommerce spend offset a marginal increase in this channel during

May. The quickest reductions were seen in Household Goods (-5.0%) and Transport & Communication (-4.9%). $^{\rm 152}$

- The total trade deficit (goods and services) narrowed GBP 16.0bn to GBP 4.3bn in Q2 2019, due largely to falling imports of goods. Imports of goods decreased GBP 18.0bn to GBP 120.0bn in Q2 2019 as imports of unspecified goods (including non-monetary gold), chemicals, and machinery and transport equipment fell, following sharp rises in Q1. ¹⁵³
- UK Manufacturing PMI fell from 49.4 in May 2019 to 48.0 in June 10'9, dropping further below the 50.0 no change level to indicate a second successive monthly deterioration of business conditions. The rate of decline was the steepest since February 2013. Manufacturing production contracted at the fastest pace since October 2012.¹⁵⁴
- UK construction output in June 2019 falls at the steepest rate since April 2009. The headline seasonally adjusted IHS Markit/CIPS UK Construction Total Activity Index posted 43.1 in June, down sharply from 48.6 in May and below the 50.0 no-change mark for the fourth time in the past five months. Moreover, the latest reading signaled the steepest reduction in overall construction output since April 2009.¹⁵⁵

Monetary

- At its meeting ending on 31 July 2019, the Monetary Policy Committee (MPC) voted unanimously to maintain Bank Rate at 0.75%. The Committee voted unanimously to maintain the stock of sterling non-financial investment-grade corporate bond purchases, financed by the issuance of central bank reserves, at GBP 10bn. The Committee also voted unanimously to maintain the stock of UK government bond purchases, financed by the issuance of central bank reserves, at GBP 435bn. MPC sets monetary policy to meet the 2% inflation target, in a way that helps to sustain growth and employment.¹⁵⁶
- The Consumer Prices Index including owner occupiers' housing costs (CPIH) 12-month inflation rate was 1.9% in June 2019, unchanged from May 2019. The largest downward contributions to change in the 12-month rate between May and June 2019 came from motor fuels, accommodation services and electricity, gas and other fuels, with prices in each category falling between May and June 2019 compared with price rises between the same two months a year ago. The largest offsetting upward contributions to change came from clothing and food. The Consumer Prices Index (CPI) 12-month rate was 2.0% in June 2019, unchanged from May 2019.¹⁵⁷

Politics

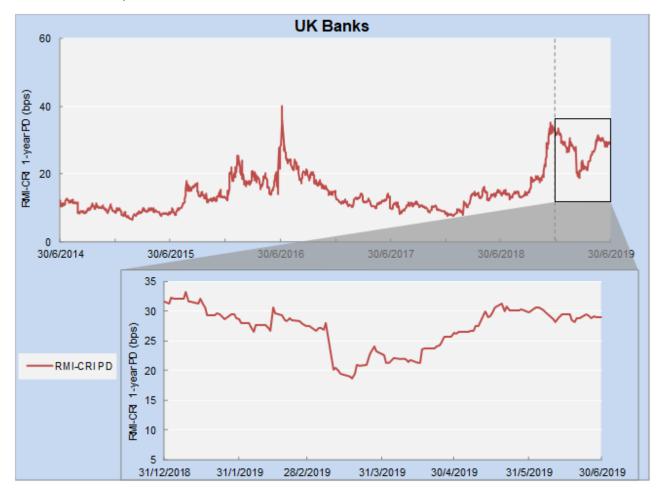
 Thousands of protesters swarmed outside Prime Minister Boris Johnson's office Saturday, furious at what they called a dangerous and undemocratic gambit to drive through Brexit by shuttering Parliament for five weeks. Demonstrators carried blue European Union flags and signs reading "Defend our democracy" and "Stop the Coup" over Johnson's stunning decision this week to suspend Parliament during the biggest domestic crisis in decades. Johnson said the break was needed to introduce an "exciting" new legislative agenda. But his critics accuse him of trying to silence opponents of Brexit, especially with the increasingly possible "no-deal" departure from the European Union that many analysts say could lead to chaos.¹⁵⁸

Sovereign Credit Ratings

 Moody's long-term rating on the UK remains at Aa2, two notches below the highest possible Aaa rating. Meanwhile, S&Ps rating kept unchanged on the country's foreign and local currency long term debt at AAu, one notch below the coveted AAA. Fitch Ratings also kept the sovereigns long term debt rating at AA, one rank from its highest rating of AAA.

UK Banks

The RMI-CRI aggregate 1-year PD for banks in the United Kingdom showed a downward trend in Q2 2019, falling from 9.31bps to 8.35 bps. The FTSE 350 Banks Index remained stable over the quarter.



Profitability

- On a statutory basis, net profit for Lloyds Banking Group fell 4% to GBP 2.2bn in H1 2019 as a result of surge in PPI charges. The lender disclosed a GBP 550mn charge to pay for responding to PPI claims in the second quarter. As a result of the PPI charge, and other one-off items including a bill to settle a legal dispute with Standard Life Aberdeen that was announced in the first quarter, Lloyds cut its full-year forecast for return on tangible equity to around 12%, from a previous estimate of 14% to 15%.¹⁵⁹
- Royal Bank of Scotland (RBS) reported a net second-quarter profit of GBP 1.3bn in H1 2019, beating the GBP 1bn forecast from Reuters. RBS also reported a cost reduction of GBP 173mn for the first half and kept its 2019 full-year outlook unchanged. ¹⁶⁰
- Standard Chartered's underlying profit before tax improved 11% to USD 2.6bn. Statutory profit before tax of USD 2.4bn is stated after provisions for regulatory matters, restructuring and other items, and increased 3%. ¹⁶¹

Funding & Liquidity

- According to the Bank Liabilities Survey produced by the Bank of England, UK banks and building societies reported that their total funding volumes increased significantly in the three months to end-May 2019. Lenders expected total funding volumes to remain unchanged in the three months to end-August 2019.¹⁶²
- Lenders reported that the internal price charged to business units to fund the flow of new loans (the 'transfer' price) had decreased in Q2. This was reported to have

been driven by a significant decrease in long-term wholesale funding spreads. Lenders expected no change in the transfer price in Q3.¹⁶³

Asset Quality

- The total write-offs of sterling denominated loans decreased from GBP 1260mn in Q1 2019 to GBP 1166mn in Q2, attributed mainly to write-offs to private non-financial corporates, which decreased from GBP 416mn to GBP 289mn. Non-financial loan write-offs to individuals increased from GBP 814mn to GBP 823mn and write-offs to non-residents decreased slightly from GBP 5mn to GBP 11mn.¹⁶⁴
- Write-offs on loans denominated in foreign currency increased from GBP 38mn in Q1 2011 to GBP 51mn in Q2 2019, driven by increase in the write-offs on loans to nonresidents, which constituted the largest share of the total write-offs.¹⁶⁵

- ¹⁵¹Aug 13, 2019 Labour market overview, UK: August 2019, ONS, http://www.ons.gov.uk
- ¹⁵²Jul 17, 2019 Visa's UK Consumer Spending Index June 2019, Visa, http://visa.co.uk
- ¹⁵³Aug 9, 2019 UK trade: June 2019, ONS, http://www.ons.gov.uk
- ¹⁵⁴Jul 1, 2019 Manufacturing downturn deepens as UK PMI falls to lowest level since February 2013, IHS Markit https://www.markiteconomics.com
- ¹⁵⁵Jul 2, 2019 Construction output falls at the steepest rate since April 2009, IHS Markit https://www.markiteconomics.com
- ¹⁵⁶Aug 1, 2019 Monetary Policy Summary and minutes of the Monetary Policy Committee meeting ending on 1 May 2019, Bank of England, http://www.bankofengland.co.uk/
- ¹⁵⁷Jun, 2019 Consumer price inflation, UK: June 2019, ONS, https://www.ons.gov.uk/
- ¹⁵⁸Aug 31, 2019 Anger over Brexit push without Parliament reaches Boris Johnson's doorstep, Washingtonpost https://www.washingtonpost.com
- ¹⁵⁹Aug 1, 2019 2019 Half-year Results, Lloyds Banking Group, https://www.lloydsbankinggroup.com
- ¹⁶⁰Aug 2, 2019 RBS second-quarter profit beats estimates; warns of tough economic outlook, CNBC, https://www.cnbc.com
- ¹⁶¹Aug 1, 2019 Half Year 2019 Results, Standard Chartered, https://www.sc.com
- ¹⁶²Jul 18, 2019 Bank Liabilities Survey 2019 Q2, Bank of England, http://www.bankofengland.co.uk/
- ¹⁶³Jul 18, 2019 Bank Liabilities Survey 2019 Q2, Bank of England, http://www.bankofengland.co.uk/
- ¹⁶⁴Jul 29, 2019 Bankstats (Monetary & Financial Statistics), Bank of England, http://www.bankofengland.co.uk/
- ¹⁶⁵Jul 29, 2019 Bankstats (Monetary & Financial Statistics), Bank of England, http://www.bankofengland.co.uk/

¹⁵⁰Aug 9, 2019 GDP first quarterly estimate, UK: April to June 2019, ONS, http://www.ons.gov.uk

Appendices

The appendices provide readers with a comprehensive overview of various outputs that are produced by RMI-CRI's operational PD system. While the PD system provides default forecasts at horizons ranging from one month to five years, here only RMI-CRI 1-year PDs are reported. In addition to the PD produced by the RMI-CRI system, important macroeconomic, corporate credit and sovereign risk indicators are provided. These summarize the credit situation at a glance, as well as provide detailed data for reference purposes.

Appendix **??** and Appendix **??** give RMI-CRI 1-year aggregate PD where the aggregations are by region, economy and sector. In these sections, the RMI-CRI 1-year aggregate PD is based on the median PD of active listed firms. These are given as month-end data, and are based on RMI's default forecast model calibrated on Aug 14, 2019, using data up to June 31, 2019. For a detailed description of RMI-CRI's default forecast model, the Technical Report is available on our website.

Appendix **??** provides 1-year aggregate PD by economy and sector. For each economy, the graph on the left shows the time series of 1-year aggregate PD for all exchange-listed firms within the economy (thick blue, left axis), and the time series of the number of firms with PD (thin orange, right axis). The table on the right provides the median and standard deviation of PDs for firms within ten industry sectors at the end of Q1 2019 and Q2 2019. Note that the statistics are for firms that have a PD at both dates so that consistent comparisons can be made. The median and standard deviation of the difference of individual PD is also given. The industry sectors are based on the Level I Bloomberg Industry Classification.

Appendix **??** gives 1-year aggregate PD by the seven regions of Asia-Pacific developed, Asia-Pacific emerging, North America, Latin America, Eastern Europe, Western Europe and Africa & the Middle East. The 12 graphs in each region show the time series of RMI-CRI 1-year aggregate PD for all exchange-listed firms in the region, all non-financial firms in the region, and firms in each of the ten industry sectors in the region. Each graph shows the PD in thick blue on the left axis and the number of firms with PD in thin orange on the right axis.

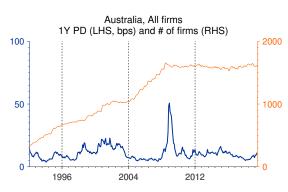
Appendix **??** provides common macroeconomic, corporate credit and sovereign risk indicators for each economy along with the RMI-CRI 1-year aggregate PD for financial and non-financial firms. The graphs on the left give historical context to the values, and the table on the right gives the data from the previous five quarters. For variables that are more frequent than quarterly, the last value in the quarter is used. But if a variable is available at a monthly frequency and the end of March data was not available at the time this report was compiled, the previous month's data is given with an asterisk.

Appendix ?? gives a more detailed description of the data in Appendix ??

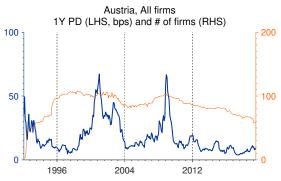




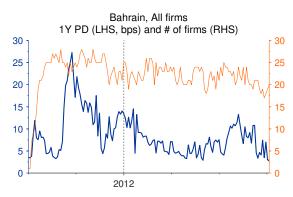
Argentina		201	8Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	12	14.8	39.5	18.8	49.4	3.8	10.9
Basic Materials	6	66.0	55.9	40.3	50.2	-0.2	29.4
Communications	5	54.9	94.9	90.7	102.7	0.4	57.6
Consumer Cyclical	5	73.3	55.9	84.4	42.9	-3.2	27.8
Consumer Non-cyclical	21	18.8	63.5	42.9	58.1	2.3	18.5
Diversified	2	59.7	84.5	68.2	96.5	8.5	12.0
Energy	2	42.4	55.4	45.2	54.8	2.8	0.6
Industrial	10	21.9	31.4	30.8	28.2	4.6	8.7
Technology	1	0.0	-	0.0	-	0.0	-
Utilities	13	33.1	34.5	46.7	25.5	6.4	23.7



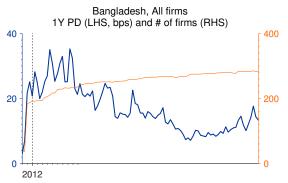
Australia		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	170	1.3	24.8	1.3	27.6	0.0	10.8
Basic Materials	569	8.9	110.5	10.7	128.8	0.4	53.4
Communications	100	16.2	55.7	19.5	134.5	0.8	100.9
Consumer Cyclical	87	5.1	73.8	5.4	83.8	0.1	47.6
Consumer Non-cyclical	247	7.1	58.3	8.6	64.6	0.3	41.1
Diversified	4	0.3	6.1	0.3	5.9	-0.0	0.2
Energy	141	13.1	73.6	12.0	144.6	0.3	96.6
Industrial	116	7.9	63.8	10.2	138.9	0.4	93.8
Technology	133	14.5	52.6	14.5	84.7	-0.2	60.1
Utilities	16	14.6	64.5	11.1	82.2	0.1	22.8



Austria		201	8Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	16	2.7	11.5	1.9	9.3	-0.5	5.9
Basic Materials	3	7.1	4.4	5.2	4.2	-1.9	0.2
Consumer Cyclical	9	18.1	66.8	16.9	114.7	-1.1	48.9
Consumer Non-cyclical	5	14.0	27.1	12.1	54.6	-0.4	42.3
Energy	3	15.2	2.2	10.8	3.5	-5.2	3.5
Industrial	16	17.6	22.0	18.7	14.8	-0.5	10.6
Technology	4	15.6	77.5	13.2	57.5	-6.3	20.5
Utilities	2	8.2	7.7	7.5	6.4	-0.6	1.4



Bahrain		201	8Q4	201	9Q1	Q1·	-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	12	12.1	18.4	12.2	20.9	-0.7	6.6	
Basic Materials	1	3.5	-	12.0	-	8.6	-	
Communications	1	0.6	-	0.3	-	-0.3	-	
Consumer Cyclical	3	0.1	0.7	0.0	0.8	0.0	0.1	



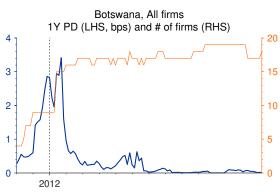
Bangladesh		2018	8Q4	201	9Q1	Q1-	Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.



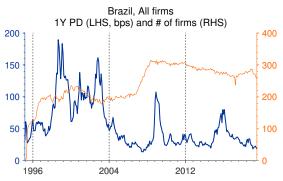
Belgium		2018	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	37	0.3	9.8	0.1	5.6	-0.0	4.4
Basic Materials	6	18.0	393.1	15.3	496.8	-1.0	103.8
Communications	9	12.1	43.2	8.9	35.5	-1.3	31.2
Consumer Cyclical	8	10.9	15.1	8.4	17.5	-1.3	7.3
Consumer Non-cyclical	25	11.8	52.9	10.9	52.3	0.0	10.6
Diversified	4	0.2	2.8	0.2	3.2	0.0	0.4
Industrial	27	14.7	41.6	14.0	25.4	0.2	21.1
Technology	4	7.5	24.8	10.6	16.0	1.4	9.5
Utilities	2	5.0	4.5	8.9	9.9	3.9	5.4



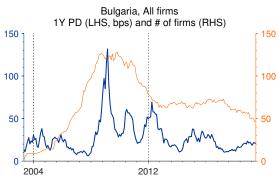
Bosnia and Herzegovina		2018Q4		2019Q1		Q1	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	15.3	2.5	9.0	2.6	-6.3	5.1
Basic Materials	2	19.1	6.5	27.5	8.8	8.4	2.3
Communications	2	5.3	5.0	6.7	7.6	1.4	2.6
Consumer Non-cyclical	4	10.8	7.9	8.3	12.7	0.1	6.3
Energy	1	10.9	-	8.4	-	-2.4	-
Industrial	1	134.5	-	130.0	-	-4.6	-
Utilities	4	36.6	24.4	30.3	25.7	3.0	20.3



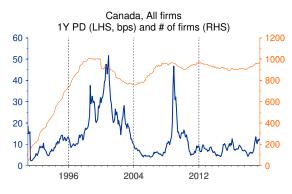
Botswana		Botswana		2018	3Q4	201	9Q1	Q1·	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.		
Financials	10	0.1	0.9	0.0	0.9	-0.0	0.0		
Communications	1	1.1	-	1.9	-	0.8	-		
Consumer Cyclical	3	0.0	0.0	0.0	0.1	0.0	0.0		
Consumer Non-cyclical	2	38.3	54.2	64.5	91.2	26.2	37.0		
Energy	1	0.0	-	0.0	-	-0.0	-		



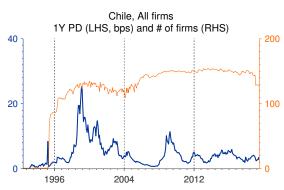
Brazil		2018Q4		201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	63	11.0	24.9	9.8	30.6	0.4	13.0
Basic Materials	18	40.3	187.8	32.6	263.9	1.8	119.7
Communications	8	17.0	106.5	20.9	165.1	1.7	102.4
Consumer Cyclical	53	19.7	272.2	24.9	233.4	2.3	102.0
Consumer Non-cyclical	48	26.1	550.3	35.0	700.7	4.2	155.0
Diversified	5	12.7	159.3	14.7	179.7	0.8	35.9
Energy	13	54.1	475.5	56.1	402.1	0.0	83.2
Industrial	25	51.9	234.5	54.1	238.5	2.0	92.8
Technology	7	2.5	222.5	1.8	142.7	-0.0	82.4
Utilities	30	14.2	24.1	15.2	33.4	0.8	14.5



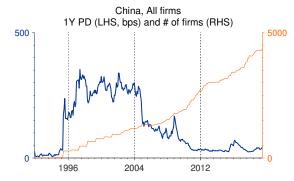
Bulgaria		2018	3Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	11	10.9	15.4	8.7	17.4	-0.3	4.8
Basic Materials	3	49.2	26.4	64.1	40.0	14.4	15.5
Communications	1	141.5	-	129.2	-	-12.3	-
Consumer Cyclical	2	34.8	10.8	27.1	1.4	-7.7	12.2
Consumer Non-cyclical	8	52.6	151.1	50.5	140.8	1.0	17.7
Diversified	7	19.2	53.5	31.5	45.4	-0.5	18.5
Energy	1	54.6	-	59.4	-	4.9	-
Industrial	15	15.1	53.7	17.1	48.2	0.1	17.3
Technology	1	5.9	-	9.8	-	3.9	-
Utilities	1	31.6	-	23.1	-	-8.5	-



Canada		201	8Q4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	150	0.5	106.6	0.4	31.6	-0.0	86.1
Basic Materials	270	16.3	160.5	17.7	197.0	0.2	104.3
Communications	39	22.4	174.5	18.6	211.4	-0.2	198.8
Consumer Cyclical	66	5.3	159.2	5.1	98.1	0.4	114.8
Consumer Non-cyclical	148	20.8	159.5	18.9	217.7	0.0	130.8
Diversified	3	20.4	133.1	27.3	123.5	-0.3	10.4
Energy	126	48.9	521.7	36.2	341.8	-0.0	480.3
Industrial	76	5.6	132.9	6.4	106.3	0.0	73.3
Technology	49	58.4	361.9	60.4	285.3	0.0	199.9
Utilities	13	0.1	37.8	0.2	86.2	0.0	53.2



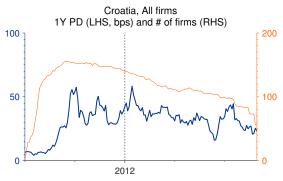
Chile		201	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	27	0.5	9.1	0.8	10.0	0.1	1.3
Basic Materials	15	6.2	60.1	6.0	140.9	-0.1	82.7
Communications	2	19.9	18.8	21.9	21.5	2.0	2.7
Consumer Cyclical	14	5.8	22.6	7.4	23.9	0.2	2.7
Consumer Non-cyclical	28	2.7	23.6	1.7	23.9	0.0	2.0
Diversified	3	5.8	15.9	10.3	12.8	0.5	4.1
Energy	3	2.6	4.4	2.3	6.5	0.0	2.3
Industrial	19	3.9	8.2	3.4	13.0	-0.1	6.1
Technology	1	1.8	-	2.4	-	0.6	-
Utilities	15	2.9	10.7	2.7	12.5	0.3	3.6



China		201	8Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	347	57.1	95.4	45.5	78.3	-11.6	27.9
Basic Materials	453	46.5	137.3	39.9	176.0	-6.7	85.7
Communications	268	34.1	106.9	31.4	92.4	-4.4	49.6
Consumer Cyclical	722	44.7	129.6	36.4	129.1	-6.1	48.5
Consumer Non-cyclical	693	22.3	156.5	19.5	124.2	-2.5	63.7
Diversified	14	74.0	76.8	54.1	64.3	-11.9	16.4
Energy	141	52.2	71.3	38.0	57.0	-6.7	22.6
Industrial	1235	45.6	149.2	37.4	143.2	-6.5	25.8
Technology	301	28.6	88.9	21.2	82.0	-5.8	27.0
Utilities	112	53.8	115.6	43.4	101.4	-5.5	24.0



Colombia		201	8Q4	201	9Q1	Q1·	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	7.5	16.8	3.9	6.3	-1.5	13.6
Basic Materials	2	20.3	20.7	20.1	15.0	-0.2	5.7
Communications	1	47.5	-	21.2	-	-26.2	-
Consumer Cyclical	2	86.1	30.0	66.0	19.3	-20.0	10.7
Consumer Non-cyclical	1	0.2	-	0.3	-	0.1	-
Energy	4	17.5	12.3	18.7	16.1	1.1	4.1
Industrial	8	8.7	25.6	11.3	15.9	-0.5	10.8
Utilities	3	6.9	10.5	5.2	12.1	0.0	2.1



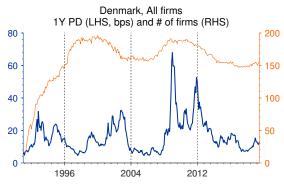
Croatia		201	2018Q4		2019Q1		-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
inancials	9	6.2	34.8	4.2	8.3	-0.6	30.0
Basic Materials	2	426.4	488.2	450.3	471.0	23.9	17.2
Communications	2	60.6	85.6	17.9	24.9	-42.7	60.7
Consumer Cyclical	27	14.3	72.4	13.5	87.3	0.1	28.9
Consumer Non-cyclical	13	31.1	118.9	36.1	130.9	3.2	56.0
Energy	2	0.8	0.9	0.6	0.5	-0.2	0.4
ndustrial	14	91.0	121.1	138.7	1511.6	25.6	1490.9
Technology	1	4.8	-	2.2	-	-2.6	-



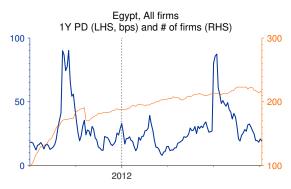
Cyprus		201	8Q4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	14	28.9	42.9	11.6	35.7	-12.2	15.9
Basic Materials	4	46.2	53.8	45.8	48.8	-1.4	5.3
Consumer Cyclical	8	48.8	47.5	47.2	38.0	-4.3	12.3
Consumer Non-cyclical	6	25.9	25.4	25.8	20.8	-1.3	6.3
Energy	4	46.0	209.2	50.7	154.2	-0.4	57.4
Industrial	3	3.6	5.2	1.7	11.3	0.0	6.4
Technology	1	109.0	-	106.3	-	-2.7	-



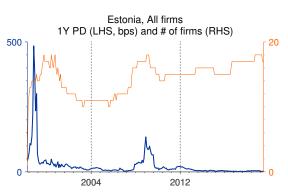
Czech Republic		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	6.4	3.9	6.3	4.9	-0.1	1.0
Communications	2	16.6	22.0	9.0	10.7	-7.5	11.4
Consumer Cyclical	1	5.2	-	2.8	-	-2.3	-
Consumer Non-cyclical	2	12.2	11.7	9.9	10.2	-2.3	1.5
Energy	1	18.0	-	13.1	-	-4.9	-
Utilities	2	13.8	1.7	13.7	3.3	-0.1	1.6



Denmark		2018	3Q4	201	9Q1	Q1·	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	37	7.1	12.8	5.8	13.1	-0.8	3.3
Basic Materials	1	0.4	-	0.4	-	0.0	-
Communications	7	13.9	60.1	8.0	49.8	0.0	18.6
Consumer Cyclical	17	26.4	75.3	28.6	61.4	0.1	20.3
Consumer Non-cyclical	34	6.9	106.3	8.3	59.1	0.0	57.1
Diversified	1	443.9	-	322.3	-	-121.6	-
Energy	3	8.3	15.6	9.1	8.3	0.8	7.4
Industrial	34	22.7	61.4	18.6	78.8	0.1	32.7
Technology	13	11.5	26.0	18.3	28.2	2.0	9.6
Utilities	2	4.9	3.2	4.8	2.3	-0.1	0.9



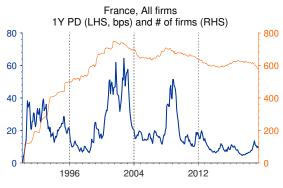
Egypt		201	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	67	22.6	71.7	12.3	45.3	-9.8	27.6
Basic Materials	24	26.4	51.7	21.3	54.0	-1.4	9.4
Communications	7	72.5	137.0	45.0	88.5	-15.5	50.1
Consumer Cyclical	27	18.0	44.5	16.8	39.9	-2.0	9.7
Consumer Non-cyclical	54	22.3	74.4	19.2	51.8	-2.9	45.5
Diversified	1	303.8	-	217.1	-	-86.7	-
Energy	1	126.6	-	136.4	-	9.9	-
Industrial	33	28.8	64.2	33.4	52.9	-1.5	24.7
Technology	1	0.8	-	1.1	-	0.3	-
Utilities	1	94.7	-	72.4	-	-22.3	-



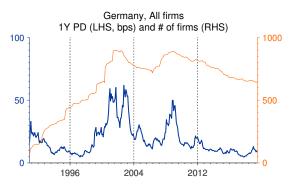
Estonia		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	5.2	4.9	5.3	6.7	0.9	2.1
Communications	1	9.5	-	11.3	-	1.8	-
Consumer Cyclical	4	0.4	16.5	0.9	29.2	0.5	12.7
Consumer Non-cyclical	2	12.0	16.9	13.1	18.5	1.1	1.6
Industrial	5	3.6	22.4	2.0	21.0	-1.6	2.1
Utilities	1	0.1	-	0.2	-	0.0	-



Finland		2018	8Q4	2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev
Financials	23	1.9	7.0	2.7	5.3	0.0	3.5
Basic Materials	6	5.7	14.2	4.3	16.4	0.3	4.6
Communications	15	4.5	18.1	4.1	18.9	0.7	4.8
Consumer Cyclical	15	9.0	24.9	11.4	25.6	-0.0	8.
Consumer Non-cyclical	32	10.7	82.7	14.5	167.9	0.0	136.3
Energy	2	156.4	219.7	32.4	44.7	-124.0	174.9
Industrial	33	8.1	88.3	7.6	27.6	0.3	72.
Technology	22	4.1	18.8	7.2	39.2	0.3	26.
Utilities	1	2.3	-	3.7	-	1.3	-



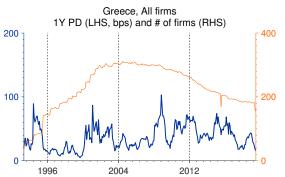
France		201	BQ4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	87	1.9	23.3	1.5	10.3	-0.2	17.8
Basic Materials	18	9.2	39.4	10.8	30.6	-0.0	14.8
Communications	58	13.4	42.0	15.2	32.0	-1.1	13.8
Consumer Cyclical	81	14.4	40.0	12.5	56.1	-1.0	39.7
Consumer Non-cyclical	138	12.6	41.2	11.2	73.4	-0.6	67.3
Diversified	3	2.1	263.5	1.8	337.6	-0.4	74.1
Energy	15	23.0	31.1	19.2	37.3	-0.4	10.4
Industrial	109	15.4	72.4	13.6	37.7	-0.8	38.6
Technology	70	14.4	72.4	14.3	59.7	-0.5	21.0
Utilities	10	4.4	5.7	4.6	3.8	-0.5	3.8



Germany		201	8Q4	201	9Q1	Q1	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	156	4.3	201.2	4.3	89.8	-0.2	144.9
Basic Materials	28	13.1	512.8	16.7	77.3	-1.0	436.6
Communications	65	14.8	128.0	14.9	87.1	-0.0	82.6
Consumer Cyclical	73	13.2	57.7	10.5	38.4	-0.0	32.0
Consumer Non-cyclical	96	11.7	32.1	10.7	31.9	-0.4	13.2
Diversified	4	49.8	26.7	46.2	28.7	1.5	10.4
Energy	20	13.5	128.8	11.6	128.9	-0.7	49.9
Industrial	114	14.4	173.7	13.2	76.7	-0.3	103.5
Technology	76	15.0	49.2	12.3	56.1	-1.1	23.0
Utilities	10	4.1	19.1	3.8	16.3	-0.3	3.2



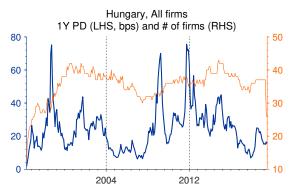
Ghana		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	7	26.6	15.9	25.7	11.3	1.4	6.6
Basic Materials	2	59.4	81.8	41.8	57.7	-17.6	24.1
Consumer Non-cyclical	7	1.2	192.0	1.2	200.6	1.0	8.8
Energy	2	62.3	50.4	57.4	2.5	-4.9	52.8



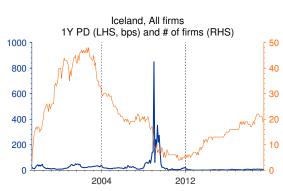
Greece		2018	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	20	6.2	98.2	4.2	34.5	-2.0	72.4
Basic Materials	11	65.8	107.5	49.8	119.9	-3.4	21.3
Communications	6	58.2	277.8	69.0	101.4	-7.7	189.5
Consumer Cyclical	37	34.7	91.3	29.2	110.0	-4.5	65.0
Consumer Non-cyclical	35	29.5	178.1	29.4	96.4	-5.1	85.7
Diversified	1	22.1	-	12.0	-	-10.1	-
Energy	6	11.4	15.3	6.6	8.2	-4.8	8.0
Industrial	50	94.5	559.7	58.6	348.9	-15.8	242.8
Technology	12	17.8	39.9	12.3	23.6	-7.7	19.3
Utilities	4	2.1	117.4	1.6	66.9	-0.5	50.5



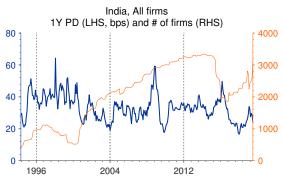
Hong Kong		201	2018Q4		9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	333	11.9	51.7	8.6	38.0	-1.4	23.2
Basic Materials	58	26.8	164.0	24.5	128.2	-2.3	54.3
Communications	93	13.1	61.7	9.4	49.1	-1.3	34.7
Consumer Cyclical	329	11.9	79.2	9.4	96.1	-0.8	57.0
Consumer Non-cyclical	204	10.4	85.0	7.6	40.9	-1.1	65.1
Diversified	17	3.4	35.4	2.7	28.9	-1.4	6.8
Energy	48	27.9	279.7	20.7	191.0	-1.9	96.5
Industrial	260	16.1	132.7	13.5	99.6	-1.7	42.9
Technology	65	17.0	51.3	14.7	53.7	-1.4	24.4
Utilities	27	14.0	47.3	10.7	34.2	-1.2	21.6



Hungary		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	12	10.1	9.2	7.0	9.6	0.2	1.9
Communications	5	37.2	29.3	16.8	15.4	-7.6	27.4
Consumer Cyclical	3	126.0	198.0	118.2	119.1	-7.8	82.2
Consumer Non-cyclical	6	5.5	87.6	10.7	56.8	-1.3	57.3
Energy	1	14.4	-	16.0	-	1.6	-
Industrial	4	40.2	35.5	39.3	70.7	18.1	50.9
Technology	1	7.0	-	4.5	-	-2.5	-
Utilities	4	8.4	5.8	10.5	7.4	1.7	1.9



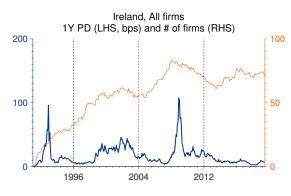
	2018Q4		2019Q1		Q1-Q4	
#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
9	6.2	3.3	6.4	3.9	-0.9	1.8
2	67.9	88.7	36.5	41.6	-31.4	47.1
3	79.0	44.1	68.7	46.9	16.9	22.3
3	5.0	12.0	8.2	9.3	0.5	3.4
1	14.0	-	10.1	-	-3.9	-
2	12.8	14.1	14.2	18.3	1.4	4.2
1	11.1	-	36.8	-	25.7	-
	9 2 3 3 1	# Median 9 6.2 2 67.9 3 79.0 3 5.0 1 14.0 2 12.8	# Median St.Dev. 9 6.2 3.3 2 67.9 88.7 3 79.0 44.1 3 5.0 12.0 1 14.0 - 2 12.8 14.1	# Median St.Dev. Median 9 6.2 3.3 6.4 2 67.9 88.7 36.5 3 79.0 44.1 68.7 3 5.0 12.0 8.2 1 14.0 - 10.1 2 12.8 14.1 14.2	# Median St.Dev. Median St.Dev. 9 6.2 3.3 6.4 3.9 2 67.9 88.7 36.5 41.6 3 79.0 44.1 68.7 46.9 3 5.0 12.0 8.2 9.3 1 14.0 - 10.1 - 2 12.8 14.1 14.2 18.3	# Median St.Dev. Median St.Dev. Median 9 6.2 3.3 6.4 3.9 -0.9 2 67.9 88.7 36.5 41.6 -31.4 3 79.0 44.1 68.7 46.9 16.9 3 5.0 12.0 8.2 9.3 0.5 1 14.0 - 10.1 - -3.9 2 12.8 14.1 14.2 18.3 1.4



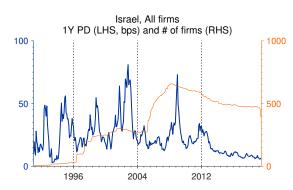
India			2018Q4		2019Q1		-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	325	0.8	9.8	0.5	5.4	-0.3	5.0
Basic Materials	302	59.7	362.1	47.7	268.2	-7.8	124.1
Communications	75	45.2	338.4	29.1	354.8	-3.6	115.4
Consumer Cyclical	430	51.5	529.7	43.0	422.6	-6.1	116.8
Consumer Non-cyclical	348	32.5	375.8	27.1	264.4	-3.7	201.9
Diversified	12	92.2	222.0	63.6	168.5	-18.6	55.6
Energy	38	55.4	607.6	53.1	531.7	-12.7	84.1
Industrial	524	59.1	473.9	46.8	462.1	-8.1	87.6
Technology	106	32.4	424.5	23.1	308.3	-2.1	206.5
Utilities	36	152.5	1396.5	132.0	949.4	-9.8	595.5



Indonesia		201	BQ4	201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	139	19.0	25.7	19.4	24.3	-0.0	9.6
Basic Materials	51	30.2	258.0	34.4	228.5	3.5	53.9
Communications	28	28.0	136.2	38.0	113.3	1.0	38.8
Consumer Cyclical	78	22.2	57.8	24.7	67.6	0.6	37.9
Consumer Non-cyclical	85	19.4	103.3	20.7	125.2	0.0	51.3
Diversified	2	43.4	33.1	51.4	37.6	8.0	4.4
Energy	32	11.0	118.7	13.8	87.0	-0.2	48.0
Industrial	92	38.5	62.4	39.3	69.3	0.5	44.2
Technology	8	17.6	95.0	11.4	75.4	-2.3	23.1
Utilities	7	10.7	34.9	16.2	75.4	3.7	45.3



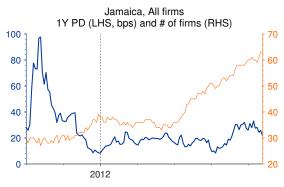
reland		201	8Q4	2019Q1		Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
inancials	11	1.9	6.8	2.0	9.1	-0.0	2.8
Basic Materials	10	29.2	62.1	33.2	89.6	1.9	35.4
Communications	2	30.2	10.7	55.1	37.9	24.8	48.5
Consumer Cyclical	7	2.3	4.3	3.0	11.2	-0.4	7.5
Consumer Non-cyclical	23	10.5	49.0	11.4	57.1	-0.0	25.7
Energy	7	95.3	118.2	123.4	96.5	-1.2	35.2
ndustrial	10	7.9	8.7	5.1	8.5	0.2	5.9
Technology	3	5.3	12.8	5.8	20.3	0.5	7.6



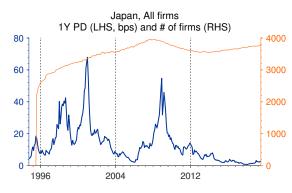
Israel		201	BQ4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	117	3.6	13.3	2.8	9.9	-0.6	4.8
Basic Materials	14	5.7	31.4	5.9	26.7	-0.1	8.3
Communications	37	12.0	1205.5	13.8	1140.3	0.1	81.2
Consumer Cyclical	47	9.7	54.1	9.8	44.8	-0.1	12.6
Consumer Non-cyclical	91	9.2	37.6	7.3	29.7	-0.0	23.7
Diversified	6	4.7	9.8	3.6	10.7	-0.6	1.4
Energy	30	10.8	33.1	11.1	28.8	-0.3	10.9
Industrial	83	10.1	50.0	8.8	50.9	-0.1	23.9
Technology	37	4.0	46.8	3.3	35.7	-0.0	20.3
Utilities	2	28.2	11.9	30.9	17.8	2.8	5.9



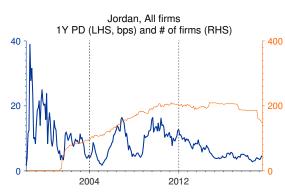
Italy		2018Q4		201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	65	13.6	61.5	12.8	36.5	-1.5	39.2
Basic Materials	4	7.5	2.9	5.7	2.6	-0.7	1.3
Communications	37	22.9	44.6	17.2	470.2	-0.3	449.8
Consumer Cyclical	58	11.4	33.3	11.6	36.6	-0.9	12.5
Consumer Non-cyclical	46	10.9	18.3	8.6	17.8	-0.0	7.5
Diversified	9	0.0	5.5	0.0	4.6	0.0	1.0
Energy	18	17.0	34.4	12.6	33.0	-2.3	7.5
Industrial	54	11.3	33.4	9.5	20.9	-1.2	18.0
Technology	16	17.2	22.1	11.5	19.2	-0.0	7.3
Utilities	12	4.1	20.5	4.6	21.9	-0.1	1.7



Jamaica		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	19	27.4	26.3	22.9	20.2	-4.2	9.9
Basic Materials	1	25.8	-	19.4	-	-6.4	-
Communications	2	68.8	86.5	38.7	46.9	-30.1	39.5
Consumer Cyclical	10	28.9	37.6	38.4	49.7	-4.1	36.5
Consumer Non-cyclical	18	51.4	52.6	30.1	46.8	-6.1	13.7
Diversified	2	46.4	30.4	38.5	30.2	-7.9	0.2
Industrial	5	39.5	56.4	42.3	32.1	-1.0	30.7
Technology	2	17.9	25.4	11.7	16.6	-6.2	8.8

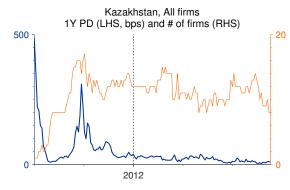


Japan		201	2018Q4		2019Q1		-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	362	4.9	19.7	5.5	22.8	0.0	6.6
Basic Materials	232	3.1	7.0	2.8	6.5	-0.1	3.1
Communications	289	2.2	9.0	2.5	8.1	-0.0	4.3
Consumer Cyclical	873	2.6	10.7	2.6	10.8	-0.0	4.7
Consumer Non-cyclical	638	1.2	6.6	1.2	7.1	-0.0	3.6
Energy	18	9.2	19.4	11.2	19.0	0.8	10.4
Industrial	961	3.2	12.3	2.9	12.7	-0.1	3.8
Technology	341	1.5	6.6	1.4	6.1	-0.0	2.4
Utilities	24	3.1	18.4	3.6	18.7	0.4	4.



Jordan		201	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	82	1.4	4.9	1.3	3.9	-0.1	1.3
Basic Materials	13	16.6	44.2	19.5	46.5	2.1	4.7
Communications	2	143.2	168.8	169.5	202.5	26.3	33.6
Consumer Cyclical	12	6.5	57.4	6.9	63.5	0.4	8.7
Consumer Non-cyclical	21	14.5	29.1	13.0	34.7	0.1	7.8
Diversified	1	140.2	-	192.4	-	52.1	-
Energy	1	46.0	-	42.3	-	-3.8	-
Industrial	19	28.7	69.7	31.0	69.0	-0.0	4.5
Technology	1	59.8	-	70.6	-	10.8	-
Utilities	2	60.8	45.9	58.5	46.8	-2.4	0.9





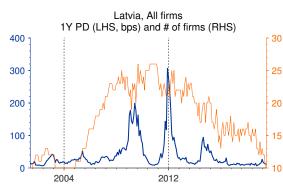
Kazakhstan		2018	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	25.3	23.2	24.6	28.3	-0.7	6.0
Basic Materials	1	18.6	-	23.1	-	4.5	-
Communications	2	2.9	2.0	3.2	1.8	0.3	0.2
Energy	1	1.9	-	2.1	-	0.2	-
Utilities	1	0.7	-	0.7	-	-0.0	-



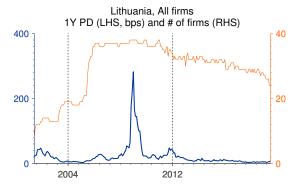
Kenya		201	3Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	21	11.1	23.9	9.4	23.5	-1.1	4.3
Basic Materials	2	38.3	5.5	38.3	10.5	-0.0	5.0
Communications	5	15.2	29.9	52.0	32.8	4.2	21.7
Consumer Cyclical	6	139.7	131.0	135.0	232.7	0.2	128.1
Consumer Non-cyclical	9	13.1	556.3	14.2	553.4	0.5	5.6
Diversified	3	55.7	44.9	85.2	48.8	0.3	17.8
Energy	2	22.4	22.9	32.1	34.4	9.7	11.6
Industrial	5	99.1	133.0	68.2	148.1	-13.7	33.6
Utilities	1	574.5	-	525.2	-	-49.3	-



Kuwait		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	91	10.4	24.7	8.8	18.8	-0.4	15.5
Basic Materials	4	1.5	9.2	2.9	7.8	-0.0	2.1
Communications	7	38.7	78.9	30.4	107.5	0.4	77.2
Consumer Cyclical	13	9.3	117.0	9.7	117.9	0.0	42.9
Consumer Non-cyclical	7	16.2	60.6	15.6	70.7	-0.0	13.3
Diversified	4	23.2	82.5	29.9	79.2	3.5	12.3
Energy	6	58.9	39.5	43.4	46.1	3.3	15.9
Industrial	15	34.0	48.1	30.0	61.7	-1.4	26.4
Technology	2	44.1	21.4	45.5	13.4	1.4	8.0



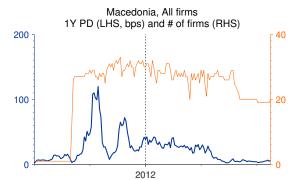
Latvia		201	BQ4	2019	9Q1	Q1-	Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Communications	1	16.2	-	25.2	-	9.1	-
Consumer Cyclical	3	83.2	38.9	78.5	37.2	-26.2	13.0
Consumer Non-cyclical	4	2.7	1.8	3.2	1.6	0.2	0.6
Industrial	2	170.7	202.6	128.4	141.3	-42.3	61.4
Utilities	1	15.4	-	8.7	-	-6.7	-

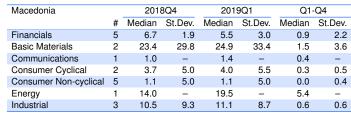


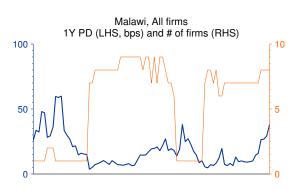
Lithuania		201	BQ4	2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	0.5	1.1	0.4	0.9	-0.1	0.3
Communications	1	0.1	-	0.0	-	-0.0	-
Consumer Cyclical	7	47.2	57.9	38.6	55.4	-2.7	6.4
Consumer Non-cyclical	6	6.7	3.9	8.2	3.8	-0.3	1.9
Energy	1	1.6	-	1.6	-	-0.1	-
Industrial	2	6.3	8.1	6.4	8.5	0.0	0.4
Utilities	4	11.4	14.7	11.3	15.2	0.5	0.7



Luxembourg		201	8Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	12	3.1	9.7	2.4	60.8	-0.0	52.3
Basic Materials	4	7.8	7.7	12.7	8.1	5.9	3.6
Communications	4	18.1	36.2	22.6	168.8	4.5	133.4
Consumer Non-cyclical	5	12.8	9.4	14.0	18.7	0.9	10.3
Energy	1	2952.9	-	2811.5	-	-141.4	-
Industrial	8	14.1	48.5	13.5	66.2	0.1	18.6
Technology	2	8.4	10.0	9.0	10.9	0.6	0.9



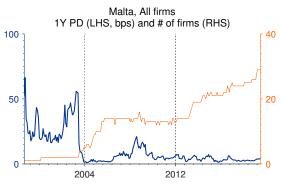




Malawi		201	BQ4	201	9Q1	Q1	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	19.1	11.3	26.2	10.1	3.3	3.2
Communications	1	1.7	-	2.4	-	0.7	-
Consumer Non-cyclical	1	11.0	-	98.7	-	87.7	-



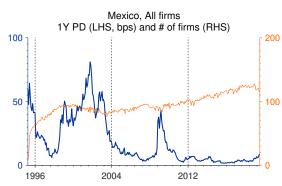
Valaysia		201	BQ4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	136	7.1	20.8	6.6	15.6	-0.2	7.6
Basic Materials	64	36.4	166.9	42.3	170.2	0.1	88.4
Communications	42	28.9	177.4	28.0	362.8	0.2	198.6
Consumer Cyclical	141	25.5	63.9	24.8	103.5	0.1	78.1
Consumer Non-cyclical	138	10.6	81.8	12.5	94.1	0.0	57.5
Diversified	11	42.7	24.4	39.1	26.5	-1.6	12.5
Energy	34	72.1	1019.9	43.5	1206.7	-0.0	200.2
Industrial	266	36.2	196.2	33.7	198.2	0.2	79.2
Technology	59	13.7	106.4	17.4	82.8	0.0	34.4
Utilities	6	19.5	19.6	20.8	16.7	1.8	4.8



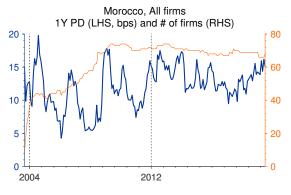
Malta		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	3.1	6.8	3.5	10.3	0.2	4.5
Communications	3	47.1	35.3	56.3	33.8	-0.1	8.8
Consumer Cyclical	6	5.8	6.4	7.6	4.5	0.6	2.5
Consumer Non-cyclical	2	0.3	0.1	0.5	0.2	0.3	0.3
Energy	1	19.4	-	19.4	-	-0.0	-
Industrial	1	0.0	-	0.0	-	-0.0	-



Mauritius		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	14	0.7	32.2	0.5	18.1	-0.0	14.8
Basic Materials	2	6.7	3.6	4.0	1.7	-2.7	5.3
Consumer Cyclical	8	1.2	67.1	1.0	67.5	-0.0	6.0
Consumer Non-cyclical	7	7.8	46.1	6.8	49.8	0.1	9.6
Diversified	1	0.0	-	0.0	-	0.0	-
Energy	1	0.0	-	0.0	-	0.0	-
Industrial	6	0.6	97.8	0.7	196.9	-0.1	102.1



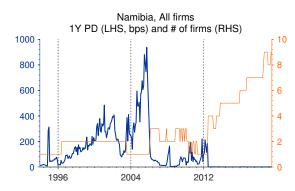
Mexico		2018	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	35	1.8	5.9	2.1	5.0	-0.0	1.9
Basic Materials	10	11.3	24.6	17.7	37.6	3.8	13.6
Communications	6	40.4	31.1	48.0	57.3	11.0	32.8
Consumer Cyclical	23	7.3	49.6	8.4	61.0	0.5	13.7
Consumer Non-cyclical	16	4.1	9.8	4.4	7.5	0.0	6.0
Diversified	4	3.9	10.5	4.2	14.7	0.4	4.3
Energy	1	172.1	-	50.2	-	-121.9	-
Industrial	21	8.6	315.1	10.3	138.1	0.0	212.3
Utilities	2	11.3	10.6	12.2	10.3	0.9	0.3



Morocco		2018	3Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	18	12.5	12.7	11.1	14.6	-0.6	3.5
Basic Materials	10	13.6	28.0	18.6	34.1	5.7	6.6
Communications	1	0.1	-	0.0	-	-0.0	-
Consumer Cyclical	6	36.4	19.7	36.4	16.8	0.3	3.6
Consumer Non-cyclical	10	7.9	10.2	8.2	11.3	-0.0	4.1
Energy	1	15.4	-	18.2	-	2.8	-
Industrial	11	32.7	122.1	33.9	118.0	0.7	12.7
Technology	5	15.5	117.7	13.2	133.1	-2.2	15.5
Utilities	3	8.6	41.1	7.4	44.5	-0.5	3.4



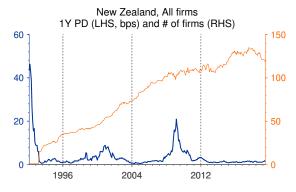
	2018Q4		2019Q1		Q1-Q4	
#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
1	13.7	-	14.3	-	0.5	-
3	9.2	24.0	9.0	21.0	-0.3	3.0
4	28.3	19.7	28.8	12.0	-0.4	8.8
1	19.1	-	19.1	-	0.1	-
2	21.0	2.4	19.1	2.6	-1.9	5.0
	4 1	# Median 1 13.7 3 9.2 4 28.3 1 19.1	# Median St.Dev. 1 13.7 - 3 9.2 24.0 4 28.3 19.7 1 19.1 -	# Median St.Dev. Median 1 13.7 - 14.3 3 9.2 24.0 9.0 4 28.3 19.7 28.8 1 19.1 - 19.1	# Median St.Dev. Median St.Dev. 1 13.7 - 14.3 - 3 9.2 24.0 9.0 21.0 4 28.3 19.7 28.8 12.0 1 19.1 - 19.1 -	# Median St.Dev. Median St.Dev. Median 1 13.7 - 14.3 - 0.5 3 9.2 24.0 9.0 21.0 -0.3 4 28.3 19.7 28.8 12.0 -0.4 1 19.1 - 19.1 - 0.1



Namibia		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	0.1	2.4	0.2	4.8	-0.0	3.1
Basic Materials	1	5.2	-	7.1	-	1.9	-
Consumer Non-cyclical	2	12.3	17.4	11.9	16.9	-0.4	0.5



Netherlands		201	2018Q4		2019Q1		-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	25	4.3	20.2	3.1	21.2	-0.3	4.0
Basic Materials	7	12.6	46.1	7.8	37.6	-0.4	16.4
Communications	11	12.6	82.3	10.8	43.7	-0.1	45.7
Consumer Cyclical	12	6.7	22.3	3.7	24.1	-0.5	9.9
Consumer Non-cyclical	28	4.5	167.4	5.5	65.8	-0.4	103.0
Energy	9	14.9	34.9	9.3	57.4	0.1	23.3
Industrial	15	14.0	9.8	11.1	7.3	-1.4	5.7
Technology	16	8.6	26.3	5.3	24.4	-1.6	3.2



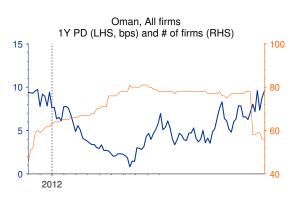
New Zealand		2018	8Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	19	0.0	20.7	0.0	21.7	-0.0	6.4
Basic Materials	3	43.0	43.9	30.2	19.7	-12.8	26.2
Communications	7	0.8	5.9	0.4	8.0	-0.2	3.9
Consumer Cyclical	18	1.6	36.6	1.9	35.6	-0.0	12.6
Consumer Non-cyclical	35	1.5	20.9	1.6	19.6	-0.2	6.1
Energy	6	1.4	3.1	1.6	3.9	0.1	1.0
Industrial	14	3.3	45.3	3.5	39.8	-0.1	5.6
Technology	12	9.3	38.5	6.5	19.2	-0.3	23.8
Utilities	6	0.1	0.2	0.1	0.1	-0.0	0.1



Nigeria		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	47	83.9	114.5	76.6	90.7	-10.4	31.3
Basic Materials	8	16.9	175.1	14.2	155.3	-0.5	20.9
Communications	3	25.0	18.6	30.7	18.9	5.1	0.6
Consumer Cyclical	14	70.4	368.2	67.5	354.9	-0.9	23.7
Consumer Non-cyclical	30	70.7	144.2	49.4	134.1	-0.4	49.6
Energy	9	104.6	194.3	92.3	159.5	-11.9	46.8
Industrial	19	50.4	206.5	43.7	188.5	-3.6	27.1
Technology	2	142.6	191.8	116.6	157.5	-26.0	34.3
Utilities	1	202.0	-	216.5	-	14.5	-



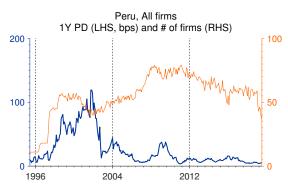
Norway		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	55	8.7	21.4	7.7	22.0	-0.4	9.5
Basic Materials	6	12.1	76.2	15.9	162.3	1.7	87.6
Communications	9	29.0	231.0	22.6	443.5	-1.1	213.5
Consumer Cyclical	5	12.1	106.0	6.7	131.5	-1.7	28.9
Consumer Non-cyclical	29	10.9	17.3	15.1	21.3	1.3	9.4
Energy	26	61.9	334.9	52.2	309.0	-9.0	45.9
Industrial	44	44.4	342.1	28.4	672.6	0.5	405.1
Technology	16	36.6	201.5	36.9	184.9	-2.7	88.5
Utilities	2	12.5	16.7	18.0	13.2	5.5	3.5



Oman		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	25	7.6	7.1	9.1	7.9	0.4	2.8
Basic Materials	4	7.5	9.6	6.4	10.7	0.8	2.7
Communications	2	125.7	175.5	120.5	168.4	-5.2	7.1
Consumer Non-cyclical	3	20.1	12.7	13.5	13.0	-0.0	4.7
Diversified	1	0.0	-	0.0	-	0.0	-
Energy	6	12.4	212.2	15.3	100.4	0.1	112.3
Industrial	11	11.5	12.5	17.3	10.8	0.2	3.7
Utilities	6	9.3	8.5	14.1	10.3	2.8	5.0



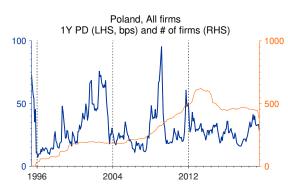
Pakistan		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	37	60.8	110.4	66.3	134.0	5.0	27.6
Basic Materials	21	14.6	207.9	15.8	266.9	0.0	59.5
Communications	4	87.1	146.3	103.8	287.1	16.7	143.5
Consumer Cyclical	26	34.1	145.4	45.8	194.6	0.5	51.4
Consumer Non-cyclical	29	10.5	61.1	11.1	116.0	0.0	59.1
Energy	12	55.5	89.2	70.2	112.1	7.3	58.3
Industrial	25	44.5	62.0	62.6	90.3	6.1	38.0
Technology	2	8.8	10.7	7.4	8.9	-1.4	1.8
Utilities	6	45.8	64.6	53.1	70.8	7.8	9.4



Peru		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	9	1.6	2.8	1.6	2.4	-0.1	1.0
Basic Materials	14	7.5	44.3	5.1	46.5	-0.5	8.9
Communications	1	108.0	-	90.0	-	-17.9	-
Consumer Cyclical	1	3.8	-	4.5	-	0.7	-
Consumer Non-cyclical	8	5.4	60.9	5.3	57.1	0.0	4.2
Diversified	1	103.5	-	81.1	-	-22.5	-
Energy	2	88.4	124.3	71.2	100.3	-17.2	24.0
Industrial	3	6.0	4.4	7.3	4.6	0.2	0.7
Utilities	4	1.3	2.9	0.6	2.7	-0.7	0.4



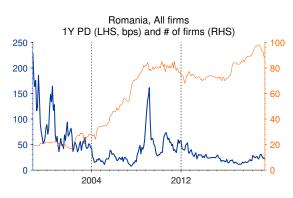
Philippines		201	8Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	82	6.1	11.1	5.5	10.1	0.0	3.8
Basic Materials	23	5.0	56.5	5.0	56.5	0.0	8.8
Communications	14	11.3	67.0	17.2	37.3	-0.0	32.5
Consumer Cyclical	30	5.8	44.9	5.1	41.4	-0.2	12.3
Consumer Non-cyclical	34	21.5	34.6	21.4	30.2	0.3	8.6
Diversified	7	18.4	10.6	13.5	11.5	-0.2	3.0
Energy	14	7.5	32.4	6.5	37.6	0.1	9.0
Industrial	16	17.8	33.6	22.2	28.5	-0.1	10.0
Technology	5	41.8	36.8	39.3	44.1	0.0	20.7
Utilities	13	16.7	29.0	16.7	27.8	-0.0	3.3



Poland		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	88	21.1	119.9	23.4	257.6	-0.5	213.4
Basic Materials	28	24.8	205.4	25.2	92.3	-0.9	129.8
Communications	37	26.5	118.8	28.9	90.8	-2.1	31.2
Consumer Cyclical	56	43.9	196.0	32.5	148.3	-3.4	69.0
Consumer Non-cyclical	64	41.9	140.5	38.3	127.3	-1.4	44.4
Energy	16	24.0	115.0	26.7	112.1	2.4	19.8
Industrial	102	48.2	523.6	41.0	385.3	-4.4	159.5
Technology	43	24.8	155.0	26.7	81.5	-3.1	79.2
Utilities	8	37.4	40.4	47.8	18.4	6.9	27.1



Portugal		201	8Q4	201	2019Q1		-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	38.2	34.2	27.4	19.5	-10.8	14.7
Basic Materials	6	8.0	17.1	9.3	15.7	0.4	2.0
Communications	6	11.0	46.9	9.4	51.1	0.1	26.8
Consumer Cyclical	7	66.3	127.0	25.5	67.0	-21.8	62.5
Consumer Non-cyclical	4	20.8	144.3	21.9	126.7	-1.9	18.0
Diversified	2	17.2	10.8	16.1	11.3	-1.2	0.5
Energy	1	2.2	-	1.8	-	-0.4	-
Industrial	5	58.8	52.2	42.2	40.3	-14.8	14.5
Technology	3	47.5	92.2	43.7	108.5	0.3	17.2
Utilities	2	9.9	8.8	3.0	1.1	-6.9	9.9



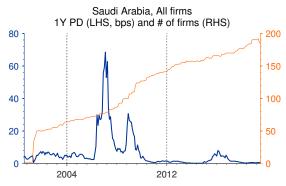
Romania		2018	8Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	10.1	16.5	6.4	7.0	-2.6	10.3
Basic Materials	11	55.1	308.3	38.7	210.0	-22.5	106.1
Communications	2	19.4	8.0	18.4	11.0	-1.0	3.0
Consumer Cyclical	13	40.1	28.2	34.6	26.4	-1.2	15.4
Consumer Non-cyclical	11	15.5	46.6	18.6	46.4	0.8	6.0
Energy	9	19.1	83.8	18.3	80.5	-0.8	11.6
Industrial	30	56.1	106.2	46.1	92.0	-5.7	36.0
Utilities	4	5.4	7.2	5.6	4.7	-0.4	2.7



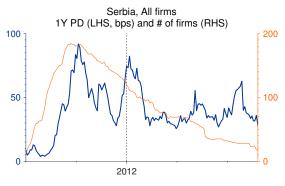
Russia		2018	3Q4	2019Q1		Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	22	24.6	19.3	22.0	21.7	-3.1	17.5
Basic Materials	33	14.5	70.0	15.4	53.6	-1.3	25.7
Communications	11	10.3	36.8	20.1	32.3	-0.4	6.1
Consumer Cyclical	17	36.9	43.3	41.2	43.6	0.7	27.0
Consumer Non-cyclical	18	23.2	46.0	24.4	36.6	-2.0	40.6
Diversified	1	115.1	-	136.6	-	21.6	-
Energy	21	13.7	37.6	14.5	36.6	-0.1	9.4
Industrial	24	34.2	89.5	33.1	74.6	0.4	19.8
Technology	3	22.5	11.7	19.0	49.3	6.0	41.3
Utilities	54	43.5	70.4	44.7	46.3	-2.9	51.3



Rwanda		2018	3Q4	201	9Q1	Q1-	Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	1.4	1.9	0.8	1.1	-0.6	0.8



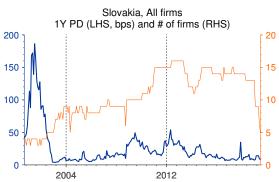
Saudi Arabia		201	3Q4	201	9Q1	Q1	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	66	0.0	0.1	0.0	0.1	-0.0	0.1
Basic Materials	19	6.5	19.3	6.6	23.1	0.4	4.5
Communications	6	28.2	39.0	26.4	32.4	-4.7	9.7
Consumer Cyclical	27	3.3	9.5	2.7	10.8	-0.0	2.5
Consumer Non-cyclical	27	1.9	4.5	2.2	5.4	0.1	1.4
Diversified	4	16.1	6.5	14.5	6.8	-0.6	3.0
Energy	2	9.6	4.2	8.0	0.0	-1.6	4.2
Industrial	38	2.2	10.8	1.7	12.3	-0.0	3.5
Technology	1	4.1	-	3.5	-	-0.5	-
Utilities	1	36.9	-	52.0	-	15.0	-



Serbia		2018Q4		2019	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	20.4	16.0	14.7	9.1	-5.7	6.9
Basic Materials	3	0.9	20.0	1.0	22.5	0.1	2.5
Consumer Cyclical	2	64.2	89.5	67.9	94.5	3.7	5.0
Consumer Non-cyclical	3	153.5	99.4	147.8	97.3	-4.6	2.3
Diversified	2	54.2	5.0	40.7	12.9	-13.6	7.9
Energy	1	2.8	-	1.6	-	-1.2	-
Industrial	9	40.6	105.6	33.9	70.7	-2.7	38.6



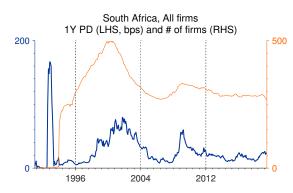
Singapore		201	8Q4	2019	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	130	3.0	26.0	3.0	26.5	-0.0	7.6
Basic Materials	21	21.9	63.5	24.9	71.3	0.1	26.7
Communications	20	11.4	28.8	6.9	50.1	-0.1	44.6
Consumer Cyclical	86	12.1	50.5	9.5	70.3	-0.0	30.0
Consumer Non-cyclical	76	10.5	64.2	9.7	67.8	-0.2	28.4
Diversified	5	3.3	34.5	2.1	28.2	-1.2	6.3
Energy	26	39.1	443.1	32.8	153.0	0.0	382.9
Industrial	164	28.9	70.7	23.4	80.6	-0.7	47.0
Technology	25	12.6	61.5	7.3	61.3	-0.4	25.6
Utilities	5	9.0	155.7	6.0	153.5	-4.7	12.9



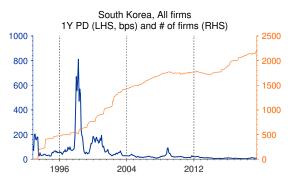
Slovakia			2018Q4		2019Q1		Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	4.5	20.3	4.3	7.5	-0.8	12.8
Consumer Cyclical	1	0.1	-	0.1	-	-0.0	-
Consumer Non-cyclical	2	16.5	2.8	15.3	1.8	-1.2	1.0
Energy	1	13.6	-	20.2	-	6.5	-



Slovenia		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	8.4	10.7	9.5	10.6	-0.6	1.0
Basic Materials	2	9.6	10.0	5.6	4.2	-4.1	5.8
Communications	1	17.1	-	15.0	-	-2.1	-
Consumer Cyclical	3	11.0	20.8	8.5	15.9	-2.5	5.0
Consumer Non-cyclical	5	5.1	94.0	4.9	90.0	-0.1	4.1
Diversified	1	27.5	-	28.7	-	1.2	-
Industrial	2	74.4	44.3	91.2	69.0	16.8	24.7
Technology	1	7.2	-	13.5	-	6.3	-
Utilities	1	14.0	-	12.4	-	-1.7	-



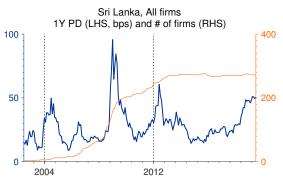
South Africa		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	84	9.7	62.5	14.0	78.0	1.2	18.0
Basic Materials	34	35.6	156.8	36.2	108.0	-1.2	96.2
Communications	12	26.6	82.7	35.1	95.6	3.2	20.7
Consumer Cyclical	39	23.7	83.9	21.4	76.9	1.7	31.6
Consumer Non-cyclical	44	17.5	155.7	19.0	119.8	1.6	63.4
Diversified	4	7.7	14.9	7.2	14.3	-0.5	0.8
Energy	7	32.1	77.9	70.2	143.3	20.9	66.0
Industrial	42	40.9	695.5	56.7	708.1	6.3	95.3
Technology	11	35.1	473.7	48.1	194.2	2.5	321.5



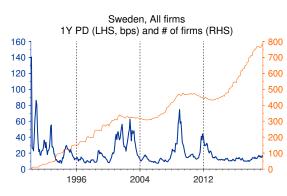
South Korea		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	94	21.1	34.1	16.3	32.2	-1.9	19.6
Basic Materials	183	9.4	37.7	9.8	104.7	0.0	80.2
Communications	179	5.7	37.1	4.2	32.5	-0.3	9.9
Consumer Cyclical	363	12.7	87.7	12.2	41.3	-0.2	64.7
Consumer Non-cyclical	414	5.6	25.9	5.0	27.3	-0.3	14.6
Diversified	32	0.0	5.8	0.0	5.8	-0.0	2.4
Energy	22	13.0	28.3	13.3	47.0	-0.2	26.1
Industrial	540	14.0	47.1	13.1	46.4	-0.0	19.4
Technology	291	7.5	36.8	5.8	39.1	-0.3	22.0
Utilities	17	28.8	43.9	26.5	40.6	-1.0	10.2



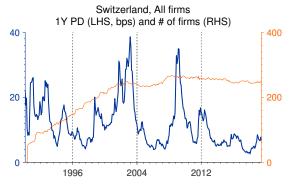
Spain		2018	3Q4	201	9Q1	Q1·	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	36	2.9	6.9	2.8	9.7	0.0	6.1
Basic Materials	8	9.2	38.5	17.8	37.3	1.8	7.5
Communications	15	12.9	21.4	10.5	17.1	0.4	7.4
Consumer Cyclical	18	7.6	51.6	8.9	30.6	-0.2	43.1
Consumer Non-cyclical	36	11.7	113.4	11.5	73.2	-0.2	53.0
Energy	6	11.8	7.2	13.0	29.9	2.4	23.7
Industrial	28	12.0	99.8	11.1	59.9	-0.1	65.3
Technology	8	10.7	7.4	7.2	9.1	-1.1	5.1
Utilities	7	0.9	1.4	1.1	1.3	-0.0	0.5



Sri Lanka		201	8Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	88	64.7	74.7	58.8	91.7	-0.4	26.6
Basic Materials	11	33.5	28.1	27.4	39.6	0.2	22.2
Communications	4	8.5	26.2	9.7	35.3	2.4	9.3
Consumer Cyclical	65	37.6	112.7	52.1	128.0	2.6	32.5
Consumer Non-cyclical	64	29.1	90.0	32.7	110.8	2.5	32.8
Diversified	6	18.5	25.8	24.2	44.2	2.4	20.3
Energy	4	7.8	8.9	8.5	12.4	1.5	4.0
Industrial	23	53.8	218.6	56.9	234.9	8.8	37.3
Technology	2	14.0	5.5	41.8	38.6	27.8	44.1
Utilities	5	16.0	98.6	23.7	106.4	0.4	8.8



Sweden		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	102	3.4	45.8	3.6	109.9	-0.0	68.0
Basic Materials	29	16.3	59.3	14.9	46.4	0.2	33.7
Communications	74	35.3	124.4	44.9	127.9	-0.2	96.7
Consumer Cyclical	90	24.8	79.4	20.2	74.0	-1.0	37.3
Consumer Non-cyclical	223	14.8	53.0	13.9	75.1	-0.1	43.8
Diversified	2	13.5	19.1	6.0	8.5	-7.5	10.6
Energy	22	17.5	143.5	18.8	128.9	-0.2	48.5
Industrial	138	17.3	330.4	16.4	157.1	-1.1	183.7
Technology	78	22.4	201.0	25.3	189.0	-0.0	68.1
Utilities	2	4.4	2.7	4.7	5.2	0.3	2.5



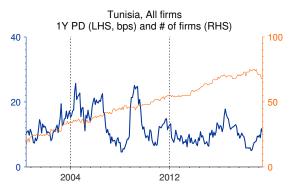
Switzerland		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	69	4.1	24.4	2.1	15.1	-0.6	10.9
Basic Materials	14	8.6	130.3	8.0	245.1	0.2	115.2
Communications	11	12.4	242.1	13.6	368.6	2.9	129.6
Consumer Cyclical	23	13.5	39.8	12.4	46.1	-0.6	30.6
Consumer Non-cyclical	49	8.0	63.7	6.6	47.9	-0.6	26.2
Diversified	2	3.0	2.8	4.3	3.5	1.3	0.7
Energy	4	39.6	940.9	49.1	1105.9	12.6	165.4
Industrial	55	9.3	143.9	9.0	451.3	-0.4	308.8
Technology	10	18.0	30.7	18.7	62.0	1.7	34.4
Utilities	6	14.8	51.7	18.9	43.1	0.5	11.2



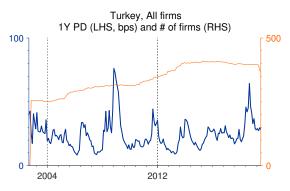
Taiwan		2018Q4		2019Q1		Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	87	0.5	3.7	0.3	2.3	-0.1	2.0
Basic Materials	71	0.5	6.3	0.3	5.1	-0.1	3.0
Communications	42	1.6	8.5	1.1	11.1	-0.2	3.5
Consumer Cyclical	153	0.6	6.1	0.5	5.6	-0.1	1.5
Consumer Non-cyclical	62	0.1	4.7	0.1	4.9	-0.0	0.7
Diversified	1	0.0	-	0.0	-	-0.0	-
Energy	9	2.0	6.1	1.4	5.6	-0.2	1.5
Industrial	314	1.8	17.8	1.2	16.0	-0.4	7.5
Technology	147	2.2	13.9	1.4	32.4	-0.3	20.8
Utilities	5	0.0	0.1	0.0	0.1	-0.0	0.0



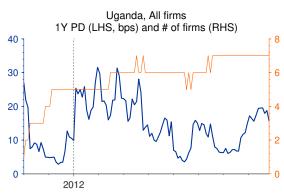
Fhailand		201	8Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	154	0.3	6.5	0.2	3.4	-0.1	3.2
Basic Materials	48	7.2	119.9	7.3	123.8	0.1	13.8
Communications	40	13.9	50.3	15.2	37.7	-0.1	25.5
Consumer Cyclical	128	5.2	45.4	5.0	46.2	0.1	21.2
Consumer Non-cyclical	98	2.3	136.5	2.4	131.2	-0.0	14.8
Diversified	6	4.1	60.6	3.7	80.6	0.8	20.0
Energy	28	8.4	27.5	8.9	22.9	0.1	13.0
Industrial	127	7.9	35.8	7.4	39.0	0.1	11.8
Technology	10	6.0	27.8	12.0	33.0	1.7	12.2
Utilities	18	2.2	14.5	1.9	17.0	0.0	7.3



Tunisia		2018Q4		201	9Q1	Q1-Q4		
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	24	10.7	21.6	10.8	18.0	0.1	10.7	
Basic Materials	2	0.8	0.2	0.9	0.2	0.1	0.4	
Communications	5	40.3	35.0	28.0	60.2	0.1	28.3	
Consumer Cyclical	13	5.9	115.7	6.4	114.7	0.2	9.5	
Consumer Non-cyclical	9	9.9	189.2	11.1	161.7	-0.0	30.4	
Diversified	1	2.0	-	7.6	-	5.7	-	
Energy	1	0.5	-	0.5	-	0.0	-	
Industrial	14	11.1	200.3	9.6	216.6	0.0	19.6	
Technology	2	139.0	195.6	171.6	242.0	32.6	46.4	



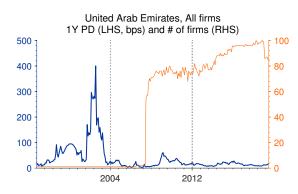
Turkey		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	105	28.3	63.4	21.5	54.8	-0.2	23.3
Basic Materials	35	23.1	31.8	28.1	33.0	0.4	9.4
Communications	11	36.2	15.3	29.6	10.5	-0.5	11.9
Consumer Cyclical	90	40.2	89.4	40.0	80.5	0.8	36.3
Consumer Non-cyclical	56	26.6	63.9	31.3	63.5	-0.7	44.4
Diversified	4	85.5	129.0	67.3	198.9	3.1	77.5
Energy	6	28.1	24.6	29.8	21.3	0.8	4.6
Industrial	75	25.3	60.7	25.8	79.7	0.7	33.6
Technology	5	12.3	25.3	7.5	15.6	-4.8	11.1
Utilities	8	82.4	58.2	105.4	57.9	10.9	18.8



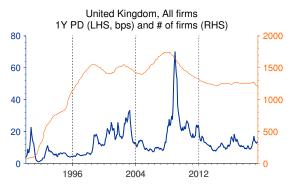
Uganda			2018Q4		9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	16.7	7.1	19.3	8.1	0.2	2.9
Consumer Non-cyclical	1	0.5	-	0.5	-	0.1	-
Industrial	1	34.2	-	46.3	-	12.1	-
Utilities	1	91.0	-	106.0	-	15.0	-



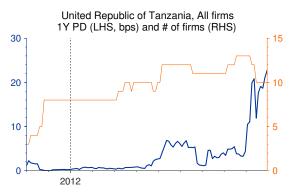
Jkraine		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	27.2	36.4	30.2	33.8	3.0	2.6
Consumer Non-cyclical	8	24.1	109.3	19.3	61.7	-2.0	48.8
Energy	2	203.4	209.0	139.3	163.0	-64.1	46.1
Industrial	2	62.6	35.9	56.6	38.0	-6.0	2.1
Utilities	2	41.9	46.7	49.3	45.8	7.4	1.0



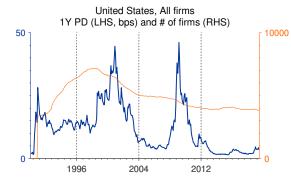
United Arab Emirates		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	47	7.8	11.7	6.9	11.0	-0.2	7.3
Communications	2	0.2	0.2	0.2	0.2	-0.0	0.0
Consumer Cyclical	5	24.9	71.2	32.8	93.8	7.9	44.4
Consumer Non-cyclical	10	39.0	227.9	45.7	129.8	4.7	153.0
Energy	7	42.9	73.7	35.6	81.4	0.3	11.6
Industrial	16	32.8	122.0	34.5	97.3	-1.2	36.0
Utilities	1	136.2	-	149.4	-	13.3	-



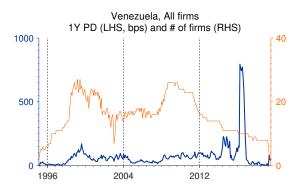
United Kingdom		201	8Q4	201	9Q1	Q1-	-Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	242	3.2	45.3	2.8	14.9	-0.1	35.6
Basic Materials	90	34.8	283.5	36.2	277.9	0.7	108.8
Communications	99	32.2	230.3	28.5	223.4	-1.1	41.5
Consumer Cyclical	149	17.9	296.3	20.8	401.2	-0.1	114.5
Consumer Non-cyclical	240	13.7	165.9	13.6	215.9	-0.4	159.9
Diversified	7	20.7	47.3	23.2	64.0	0.1	19.2
Energy	100	35.1	235.9	37.9	272.9	1.8	119.0
Industrial	170	15.6	329.1	14.1	264.6	-0.4	111.4
Technology	108	14.5	60.9	13.7	104.0	-0.4	67.2
Utilities	13	11.4	131.6	22.9	122.4	-0.1	14.9



Inited Republic of Tanzania		2018Q4		201	9Q1	Q1-Q4	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	40.4	25.7	31.5	21.6	-8.6	5.1
Communications	1	34.7	-	24.2	-	-10.5	-
Consumer Non-cyclical	2	1.8	2.4	2.1	2.6	0.3	0.2
Industrial	3	7.7	6.0	14.4	117.4	6.7	111.6



United States		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	907	1.2	20.9	1.3	28.2	0.0	14.6
Basic Materials	114	3.4	294.5	3.7	200.0	0.1	120.6
Communications	257	5.6	295.6	6.1	518.7	0.1	407.2
Consumer Cyclical	451	8.0	239.6	8.5	205.5	0.0	149.1
Consumer Non-cyclical	957	10.4	295.8	10.6	254.1	0.0	176.2
Diversified	18	0.0	32.8	0.0	26.1	-0.0	6.7
Energy	267	20.9	355.5	20.4	754.5	-0.0	493.2
Industrial	474	3.6	235.8	3.8	294.3	-0.0	253.3
Technology	315	3.1	115.2	3.2	122.2	-0.0	90.1
Utilities	73	0.2	137.3	0.2	140.9	-0.0	104.5



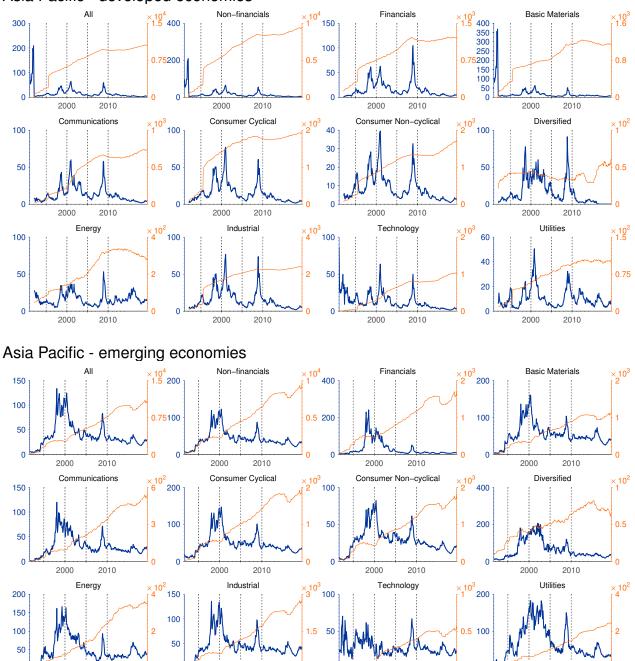
	2018Q4		2019	9Q1	Q1-Q4		
#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
4	125.9	103.5	2.5	3.5	-123.4	100.7	
1	19.7	-	78.7	-	59.0	-	
1	140.6	-	5.2	-	-135.4	-	
	# 4 1	# Median4 125.91 19.7	# Median St.Dev. 4 125.9 103.5 1 19.7 -	# Median St.Dev. Median 4 125.9 103.5 2.5 1 19.7 - 78.7	# Median St.Dev. Median St.Dev. 4 125.9 103.5 2.5 3.5 1 19.7 - 78.7 -	# Median St.Dev. Median St.Dev. Median 4 125.9 103.5 2.5 3.5 -123.4 1 19.7 - 78.7 - 59.0	



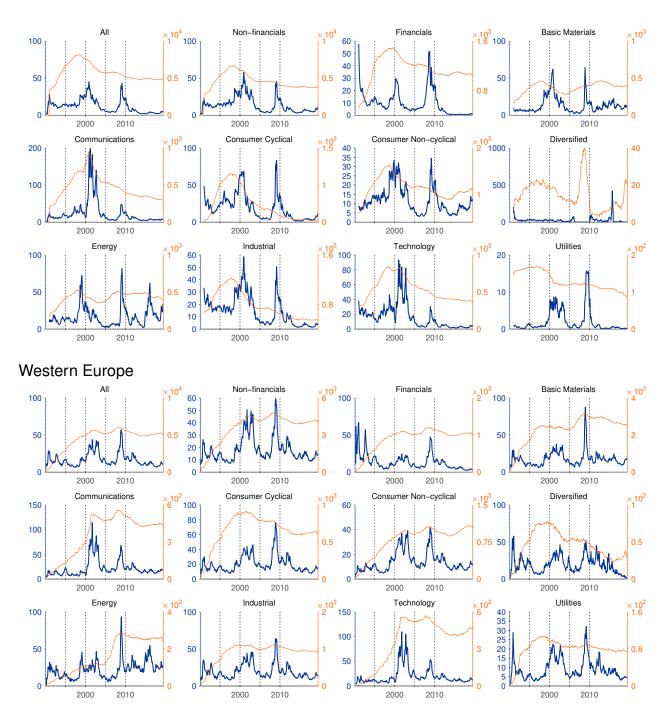
Vietnam		201	BQ4	201	9Q1	Q1-	·Q4
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	99	23.3	36.4	15.1	31.6	-5.2	11.2
Basic Materials	70	43.4	193.5	48.3	210.6	-1.5	74.6
Communications	21	28.5	69.5	43.1	68.5	0.6	27.1
Consumer Cyclical	77	37.5	72.9	30.8	65.9	-2.8	35.6
Consumer Non-cyclical	105	35.8	123.9	26.6	125.4	-0.7	21.6
Diversified	6	42.1	68.7	38.6	19.3	-8.7	66.3
Energy	20	91.5	123.7	72.3	89.7	-1.0	52.6
Industrial	221	65.1	122.5	59.3	99.3	-0.7	60.1
Technology	5	47.9	60.6	37.9	35.7	-10.0	25.9
Utilities	24	21.9	32.9	25.7	24.9	-0.4	12.1



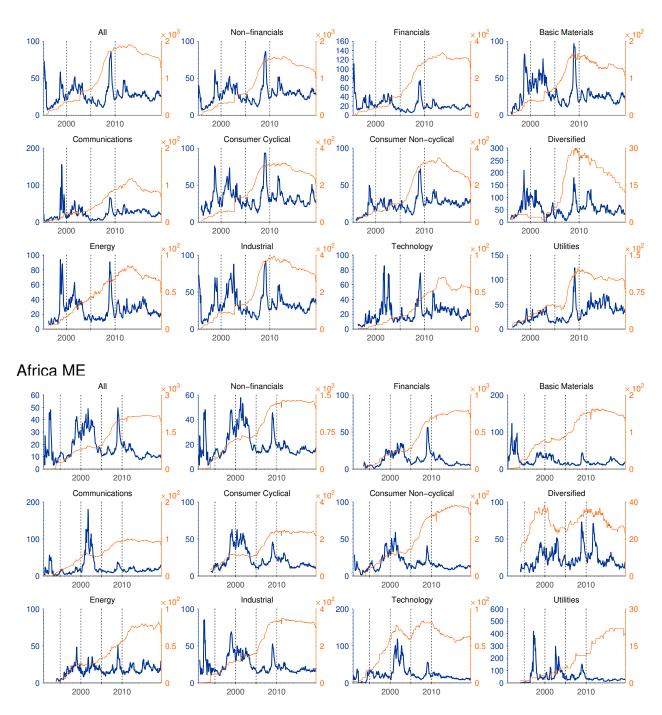
Asia Pacific - developed economies



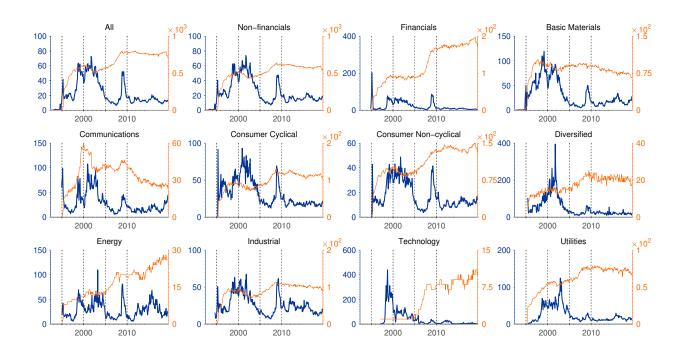




Eastern Europe

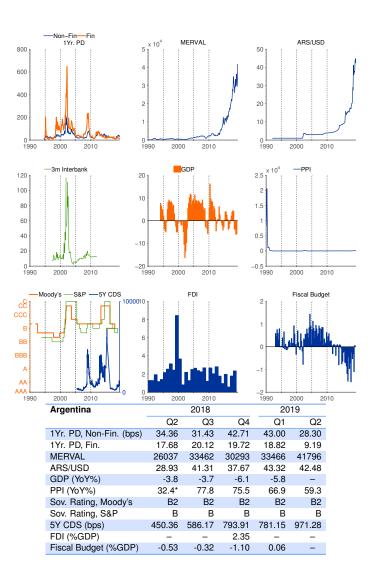


Latin America



C Macroeconomic Indicators

Descriptions of the data contained in this section are provided in Appendix ??.





120 100 80 40 200 1990	Non-Fin 1Yr. PD 7000 6000 5000 4000 3000 2000 2010 1100		2010	nV ^{ull}	1.4 1.2 1 0.8 0.6 0.4 1990	AUD/USD	110
	Manahan	GDP	2010	PMI 80 60 40 20	30 20 10 0 -10 1990	PI — Money S	
с8 ссс в вв вв а а	Moody's S&P -5Y CDS 200 8 150 4 100 2 50 -2 0 4					Fiscal Budg	
1990		990 2000			1990 0		010
	Australia		2018	<u> </u>)19	
		Q2	Q3	Q4	Q1	Q2	
	1Yr. PD, Non-Fin. (bps)	6.80	8.00	10.26	10.66	12.61	
	1Yr. PD, Fin.	1.55	0.69	1.35	1.26	1.91	
	All Ordinaries AUD/USD	6290	6326	5709	6262	6699	
	3m Treas. Yield (%)	0.74 1.92	0.72 1.89	0.70 2.01	0.71 1.80	0.70 1.44	
	10Y Treas. Yield (%)	2.63	2.67	2.01	1.77	1.44	
	3m Interbank (%)	2.03	1.93	2.02	1.77	1.21	
	GDP (YoY%)	3.1	2.8	2.03	1.8	-	
	OECD CLI	99.76	99.69	99.59	99.83	100.26	
	PMI	55.6	57.1	50.0	51.0	49.4	
	PPI (YoY%)	5.2	6.9	5.4	4.7	3.0	
	Money Supply (YoY%)	1.9	2.2	2.5	4.0	4.0	
	Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa	
	Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA	
	5Y CDS (bps)	-	16.60	21.46	16.44	19.16	
	FDI (%GDP)	-	-	4.05	-	-	
	Fiscal Budget (%GDP)	-	-	-0.01	-	-	

5000

4000

3000

2000

1000

m Interbank

0 1990

-5 1990

Non-Fin-1Yr. PD Fin

80

60

40

20

0 1990

3m 8 1 Treas

6

2

0 -2 1990 2000

2000

Moody's

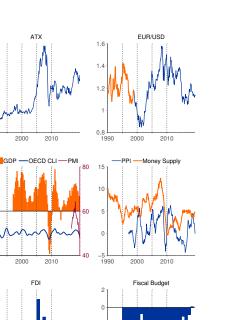
10Y Tr

2010

2010

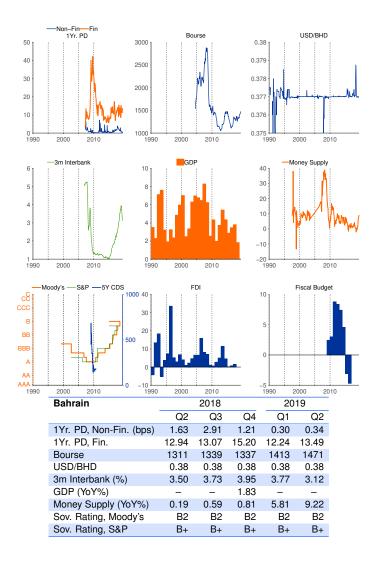
-5Y CDS

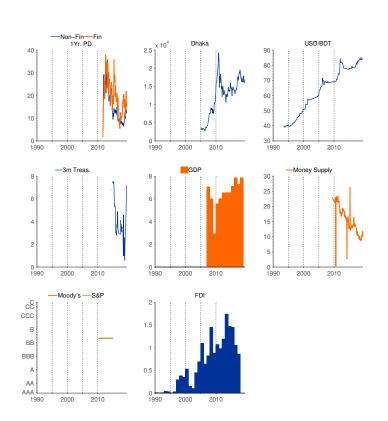
-S&P



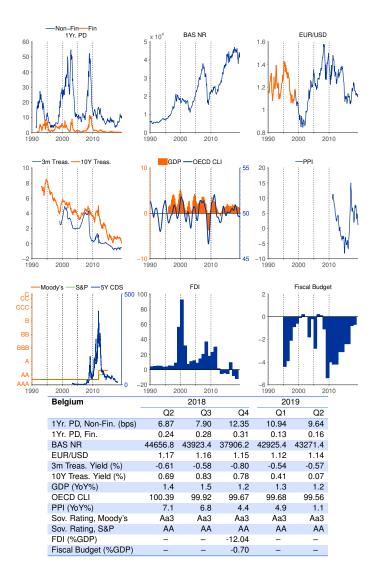
	Moody's	5&P - 5Y CD				FDI			Fiscal Budg	jet
62			300	30				2		-
ccc				20				0		
в			200	20					- L	1
BB				10				-2		1 1
BBB								-4		
A			100	0						
AA		1 Mark					1	-6		
AAA 1990	2000	2010	- ₀	10	2000	0 2010		-8	2000 2	010
1990	Austria	2010		1990	2000	2010			2000 2 019	010
	Austria				Q2	2018 Q3	Q4			-
	11/4 00	New Tim	(haa	`						
	1Yr. PD	, Non-Fin.	(pps)	9.36	7.55 1.29	12.30 2.58			
	ATX	, FIN.			2.80					
	EUR/US	סי			3256 1.17	3344 1.16	2746 1.15			
			()							
		s. Yield (%	'		-0.69	-0.63	-0.67			
		as. Yield (%)		0.58	0.68				
		bank (%)			-0.32	-0.32				
	GDP (Ye	,			2.8	2.3	2.2			
	OECD (JLI		10	01.26	101.02	100.44			
		(0()			56.6	55.0	53.9			
	PPI (Yo	,			3.6	4.2	2.3			
		Supply (Yo			4.5	3.5	4.0			
		ting, Mood	iys		Aa1	Aa1	Aa1			
		ting, S&P			AA+	AA+	AA+	AA+	AA+	
	5Y CDS				14.0	13.4	-	. –	-	
	FDI (%C	,			-	-	2.47		-	
	Fiscal B	udget (%C	iDP)		-	-	0.10	-	-	

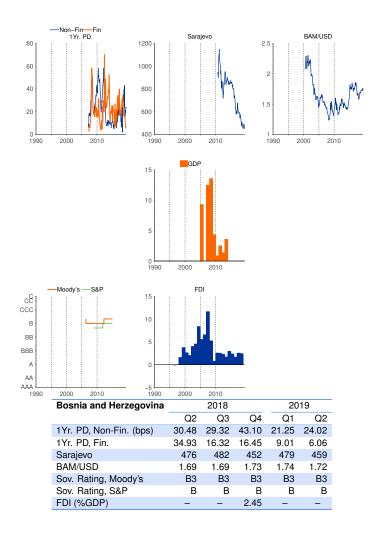


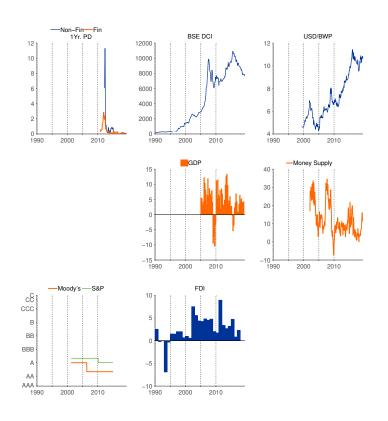




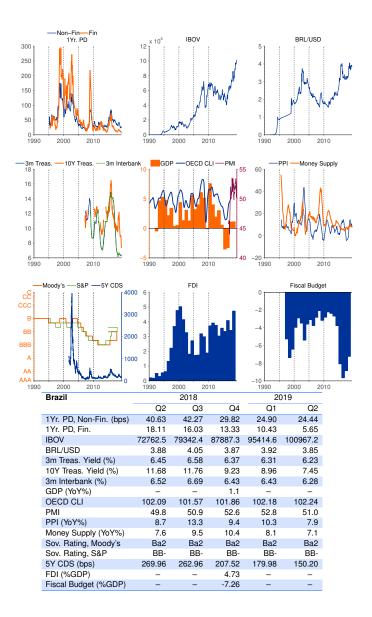
Bangladesh		2018	2019		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	6.43	8.90	11.48	13.36	12.13
1Yr. PD, Fin.	18.98	18.08	13.46	15.32	15.04
Dhaka	16540	16483	16450	16803	16634
USD/BDT	83.78	83.97	83.60	83.92	84.53
3m Treas. Yield (%)	4.58	2.59	2.40	3.95	7.19
GDP (YoY%)	-	-	7.9	-	-
Money Supply (YoY%)	9.2	8.8	9.4	10.9	9.9
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-



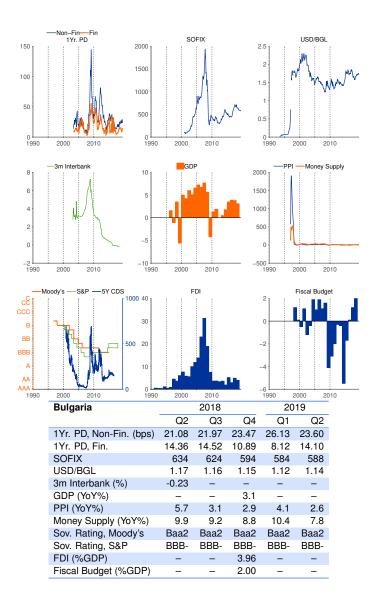


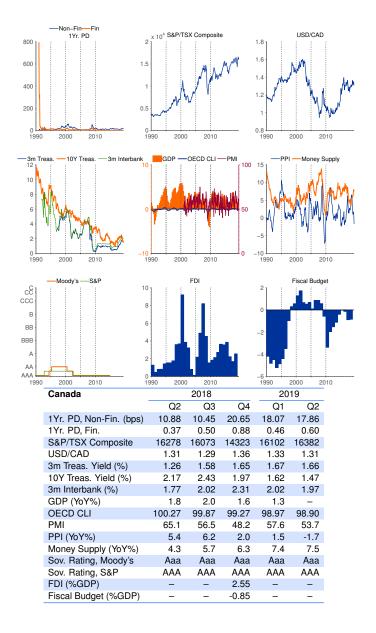


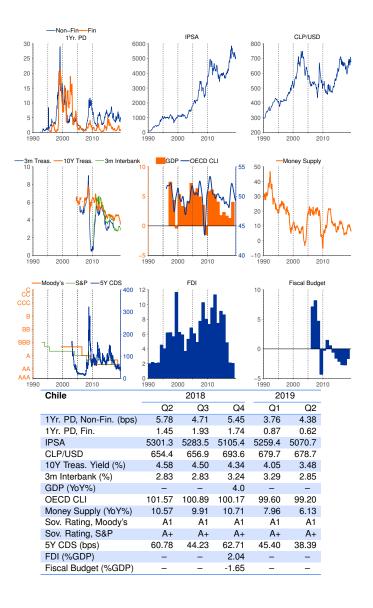
Botswana		2018	20	2019	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	0.01	0.01	0.09	0.04	0.01
1Yr. PD, Fin.	0.16	0.11	0.07	0.04	0.01
BSE DCI	8403	7837	7852	7886	7623
USD/BWP	10.39	10.59	10.71	10.75	10.66
GDP (YoY%)	5.2	4.0	4.1	4.3	-
Money Supply (YoY%)	3.4	6.1	8.3	16.1	11.3*
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	А	А	А	А	А

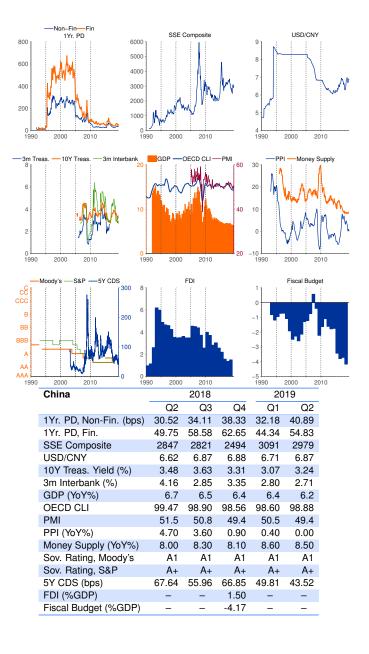












200

150

100

50

0 1990

40

30

20

10

20 000

в

BB

BBB

0 1990

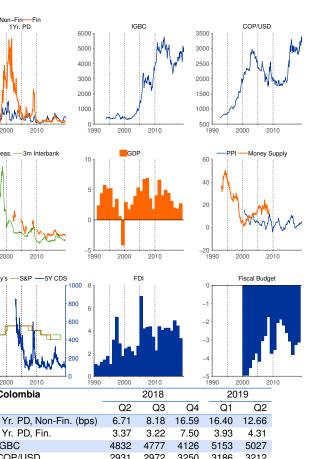
2000

2000

Fiscal Budget (%GDP)

Moody's

10Y Treas.



		When	200	2	l la			-4		
1990	2000	2010		1990	2000	2010			2000	2010
	Color	nbia				2018		20	019	
					Q2	Q3	Q4	Q1	Q2	2
	1Yr. F	PD, Non-F	in. (bp	s)	6.71	8.18	16.59	16.40	12.66	3
	1Yr.F	PD, Fin.			3.37	3.22	7.50	3.93	4.31	1
	IGBC				4832	4777	4126	5153	5027	7
	COP/	USD			2931	2972	3250	3186	3212	2
	10Y T	reas. Yiel	ld (%)		6.58	6.89	6.75	6.62	6.14	1
	3m In	terbank (S	%)		4.52	4.66	4.28	4.06	4.41	1
	GDP	(YoY%)			-	-	2.7	-	-	
	PPI (`	YoY%)			3.08	3.77	3.09	3.64	4.44	1
	Sov. I	Rating, Mo	oody's		Baa2	Baa2	Baa2	Baa2	Baa2	2
	Sov. I	Rating, S&	λΡ		BBB-	BBB-	BBB-	BBB-	BBB	-
	5Y CI	DS (bps)			125.2	110.1	157.1	110.9	91.9	Э
	FDI (%GDP)			-	-	3.33	-	-	

_

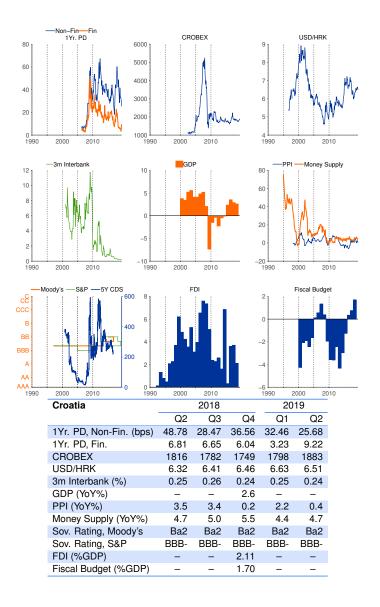
-

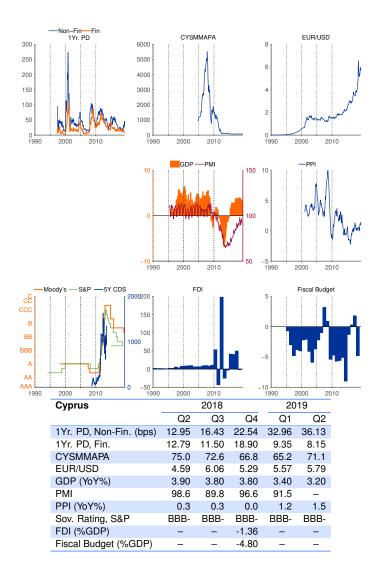
-3.12

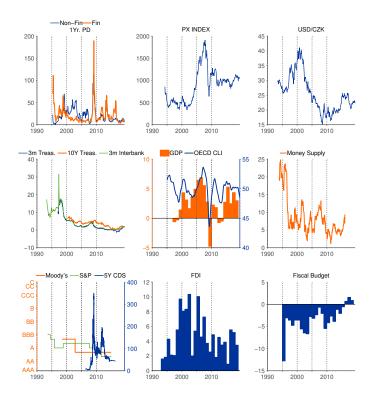
-

_

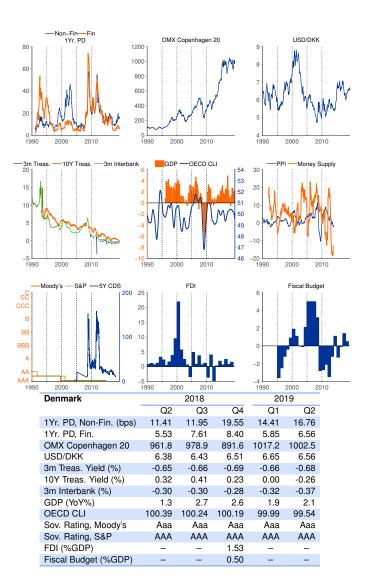


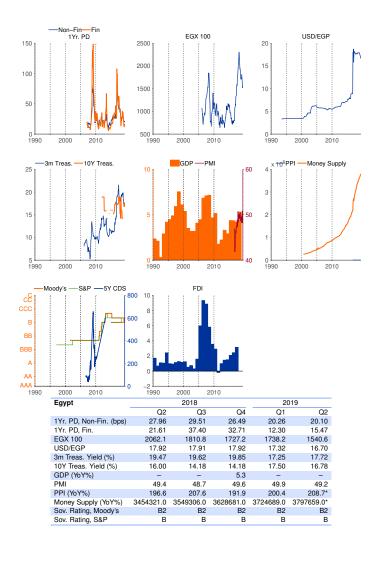


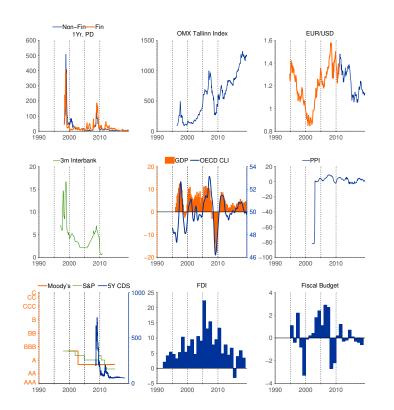




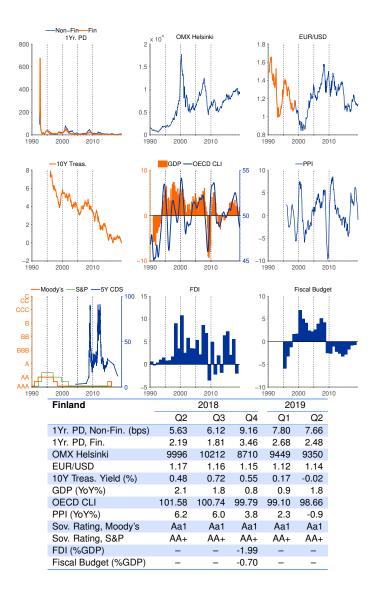
Czech Republic		2018	2019		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	11.11	9.52	14.03	12.20	6.55
1Yr. PD, Fin.	8.01	6.90	11.13	6.26	6.35
PX INDEX	1064	1102	987	1074	1042
USD/CZK	22.24	22.21	22.43	23.02	22.36
3m Treas. Yield (%)	0.66	1.06	1.46	1.79	1.67
10Y Treas. Yield (%)	2.20	2.19	2.04	1.90	1.53
3m Interbank (%)	1.16	1.70	2.01	2.02	2.17
GDP (YoY%)	-	-	3.0	-	-
OECD CLI	100.12	100.23	99.90	99.19	98.51
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
FDI (%GDP)	-	-	3.48	-	-
Fiscal Budget (%GDP)	-	-	0.90	-	-

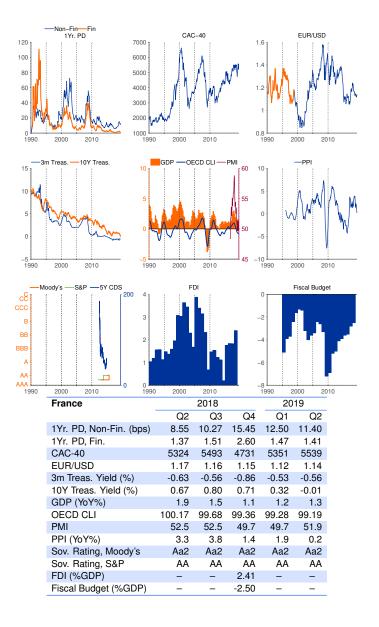


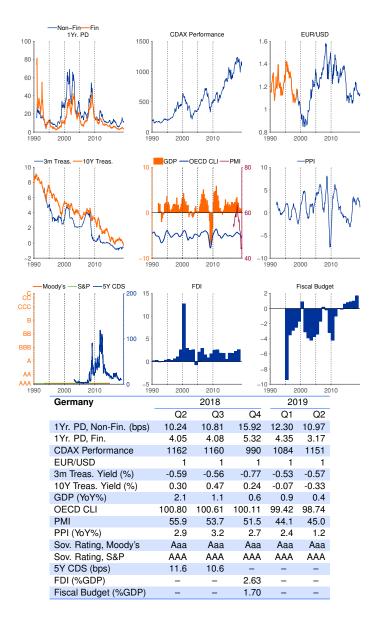


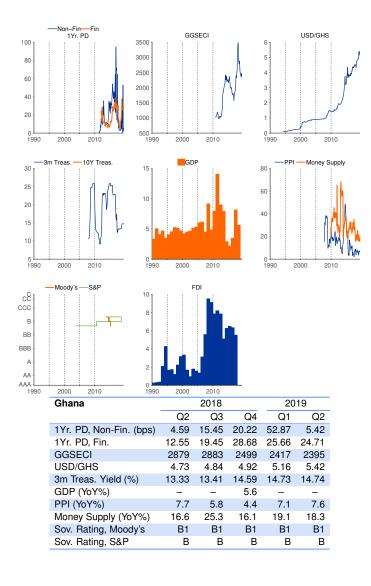


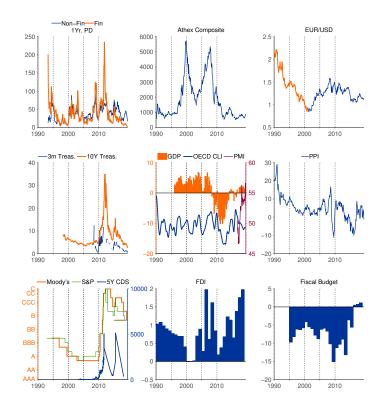
Estonia		2018	2019		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	1.56	2.20	2.98	1.56	2.33
1Yr. PD, Fin.	5.96	4.91	5.95	8.31	4.48
OMX Tallinn Index	1262	1216	1163	1238	1255
EUR/USD	1.17	1.16	1.15	1.12	1.14
GDP (YoY%)	4.0	3.9	4.2	4.6	-
OECD CLI	100.15	99.90	99.94	99.98	99.73
PPI (YoY%)	2.9	2.9	1.6	0.4	0.5
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
FDI (%GDP)	-	-	3.39	-	-
Fiscal Budget (%GDP)	-	-	-0.60	-	-



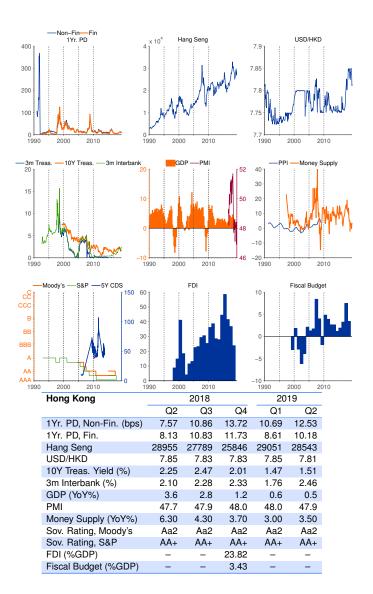


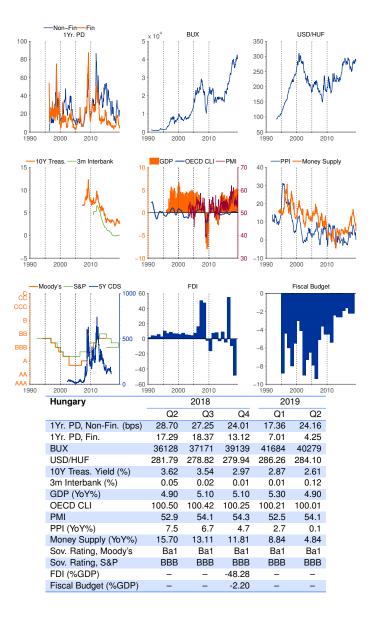


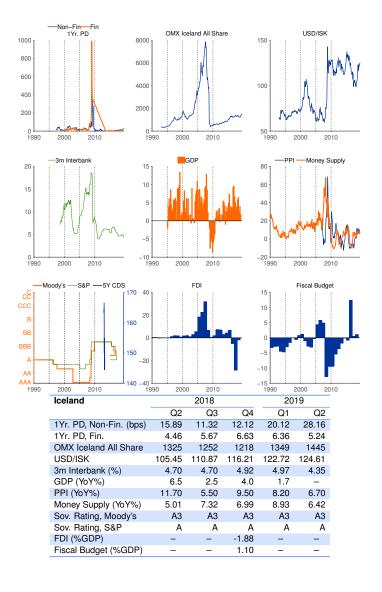


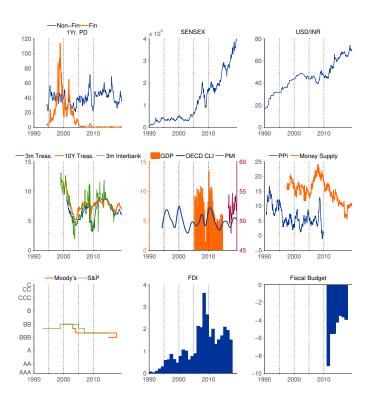


Greece		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	37.35	41.08	43.14	30.86	17.23
1Yr. PD, Fin.	9.05	9.02	8.18	3.54	1.49
Athex Composite	757.6	691.7	613.3	721.4	868.5
EUR/USD	1.17	1.16	1.15	1.12	1.14
3m Treas. Yield (%)	1.04	1.12	1.30	0.87	0.99
10Y Treas. Yield (%)	3.96	4.18	4.40	3.74	2.45
GDP (YoY%)	1.6	2.1	1.5	1.3	-
OECD CLI	99.18	98.94	99.20	99.29	99.23
PMI	53.5	53.6	53.8	54.7	52.4
PPI (YoY%)	6.2	5.3	-0.1	4.0	-1.2
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	-	-	1.98	-	-
Fiscal Budget (%GDP)	-	-	1.10	-	-

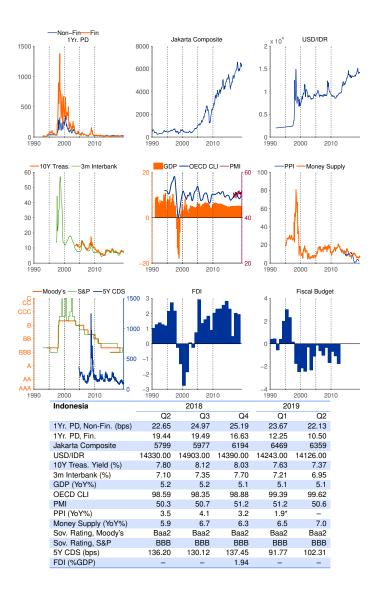




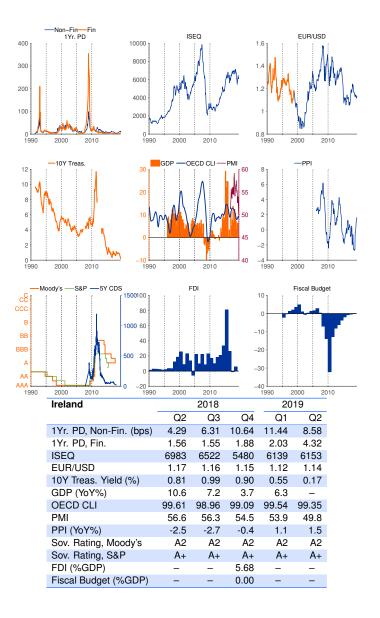




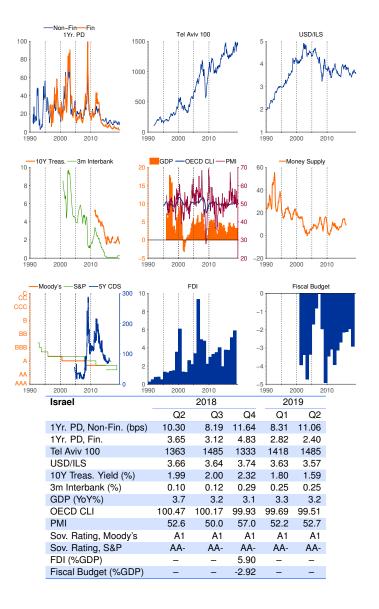
India		2018	20	2019	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	33.83	37.18	43.52	40.29	35.64
1Yr. PD, Fin.	0.26	0.37	0.55	0.51	0.62
SENSEX	35423	36227	36068	38673	39395
USD/INR	68.47	72.49	69.77	69.16	69.03
3m Treas. Yield (%)	6.46	6.99	6.75	6.14	5.98
10Y Treas. Yield (%)	7.90	8.02	7.37	7.35	6.88
3m Interbank (%)	-	-	-	-	7.10
OECD CLI	100.47	100.51	100.44	100.34	100.23
PMI	53.1	52.2	53.2	52.6	52.1
Money Supply (YoY%)	9.8	9.4	10.2	10.6	10.1
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-

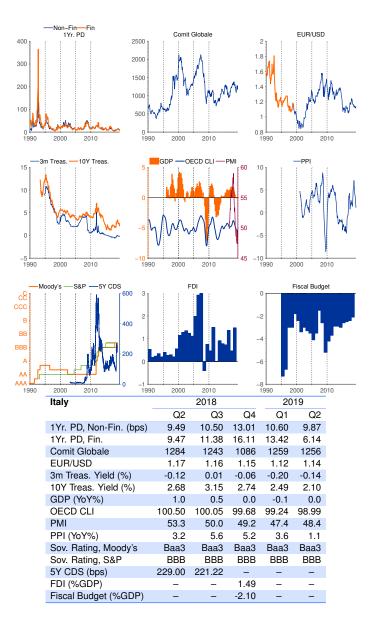


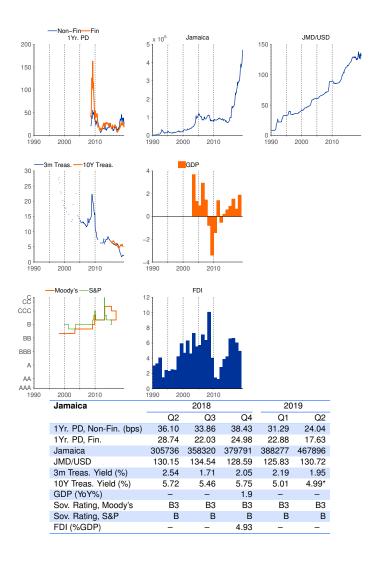


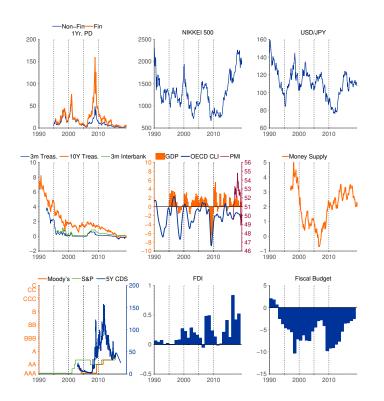




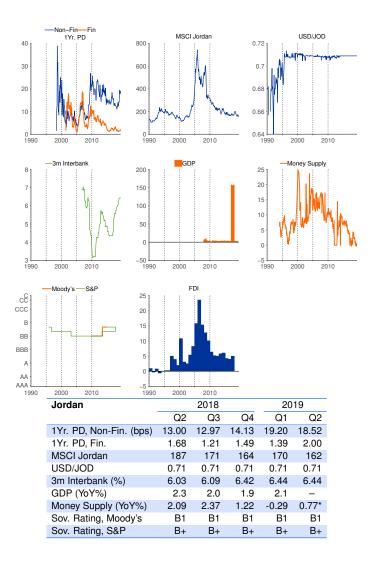


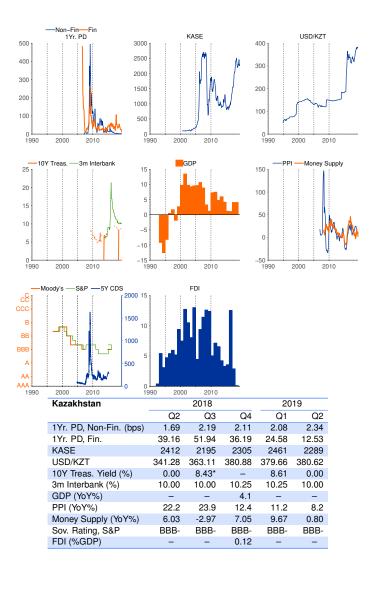


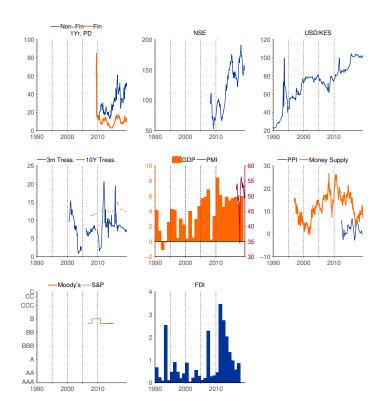




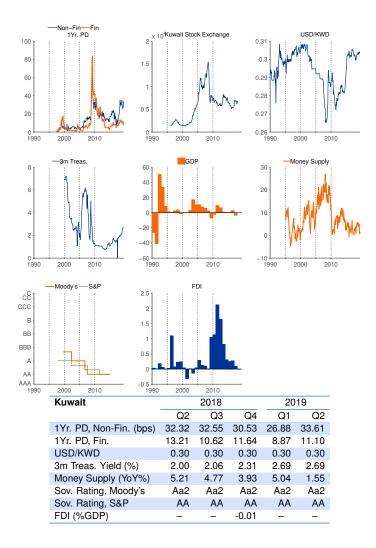
Japan		2018	20	2019		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	1.35	1.41	3.05	2.25	2.52	
1Yr. PD, Fin.	2.46	2.82	6.86	5.39	5.34	
NIKKEI 500	2174	2246	1859	2030	1999	
USD/JPY	110.76	113.70	109.69	110.86	107.85	
3m Treas. Yield (%)	-0.14	-0.13	-0.15	-0.17	-0.13	
10Y Treas. Yield (%)	0.04	0.13	0.00	-0.08	-0.16	
3m Interbank (%)	0.07	0.07	0.07	0.07	0.07	
GDP (YoY%)	1.4	0.2	0.3	1.0	1.1	
OECD CLI	100.18	100.11	99.87	99.52	99.25	
PMI	53.0	52.5	52.6	49.2	49.3	
Money Supply (YoY%)	2.70	2.50	2.10	2.10	2.00	
Sov. Rating, Moody's	A1	A1	A1	A1	A1	
Sov. Rating, S&P	A+	A+	A+	A+	A+	
FDI (%GDP)	-	-	0.52	-	-	
Fiscal Budget (%GDP)	-	-	-2.54	-	-	



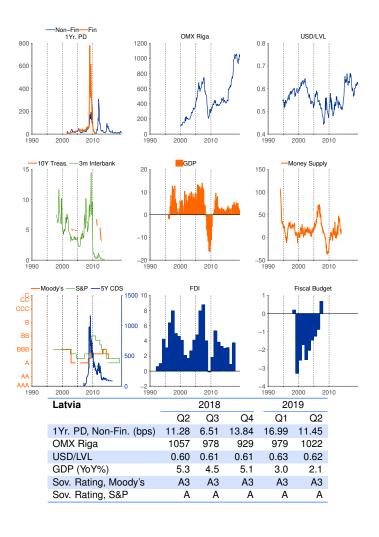


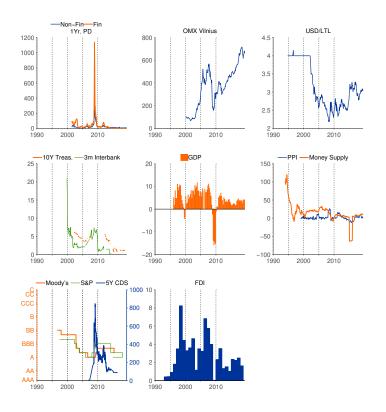


Kenya		2018		20	2019		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	40.37	36.87	47.31	52.02	52.47		
1Yr. PD, Fin.	9.87	10.66	14.41	9.36	13.73		
NSE	174	150	140	158	150		
USD/KES	101.01	100.85	101.85	100.82	102.45		
3m Treas. Yield (%)	7.73	7.61	7.34	7.50	6.74		
10Y Treas. Yield (%)	-	12.66	12.50	12.44*	-		
GDP (YoY%)	-	-	6.0	-	-		
PMI	55.0	52.7	53.6	51.0	54.3		
PPI (YoY%)	0.7	0.4	1.5	-0.4	-		
Money Supply (YoY%)	10.38	8.48	10.14	12.52	6.89		
Sov. Rating, Moody's	B1	B1	B1	B1	B1		
Sov. Rating, S&P	B+	B+	B+	B+	B+		

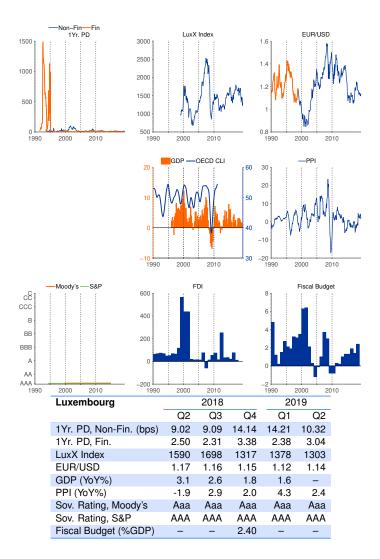




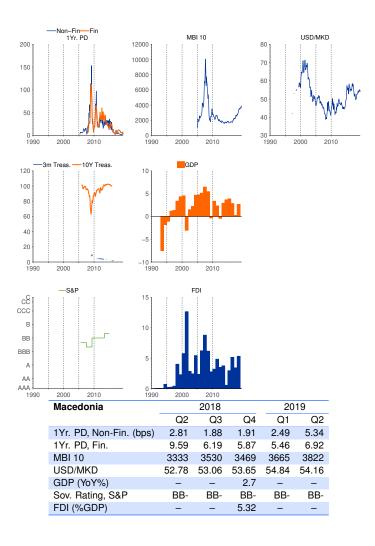


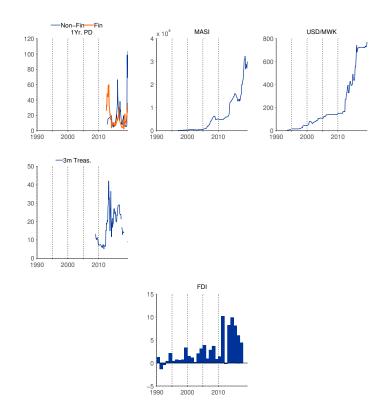


Lithuania		2018			19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	6.03	7.46	10.15	8.72	8.40
1Yr. PD, Fin.	0.57	0.43	0.47	0.36	0.14
OMX Vilnius	710	689	617	655	666
USD/LTL	2.96	2.98	3.01	3.08	3.04
10Y Treas. Yield (%)	1.08	1.10	1.14*	_	_
GDP (YoY%)	3.8	2.6	3.8	4.2	4.1
PPI (YoY%)	8.9	9.1	1.2	3.8	-0.8
Money Supply (YoY%)	9.30	9.50	11.40	11.60	9.10
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	А	А	А	А	А
FDI (%GDP)	-	-	1.63	-	-

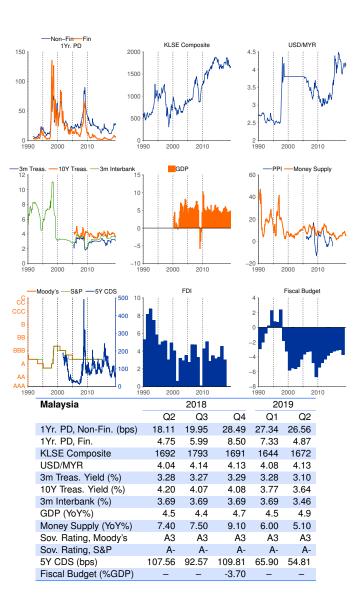


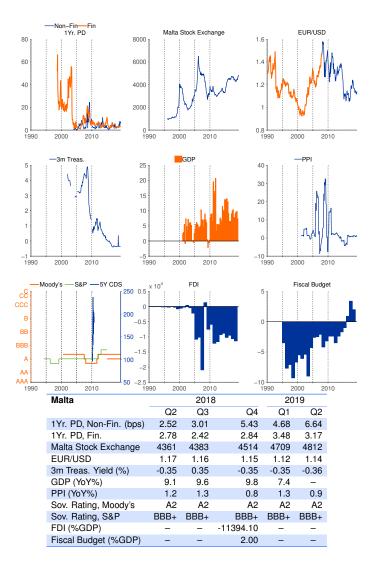


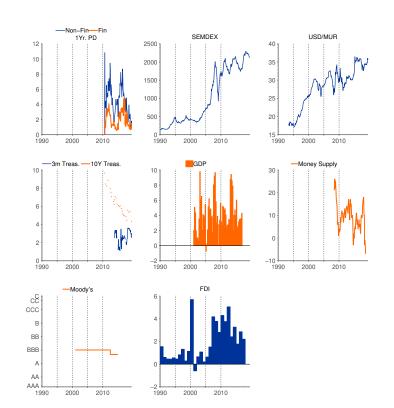




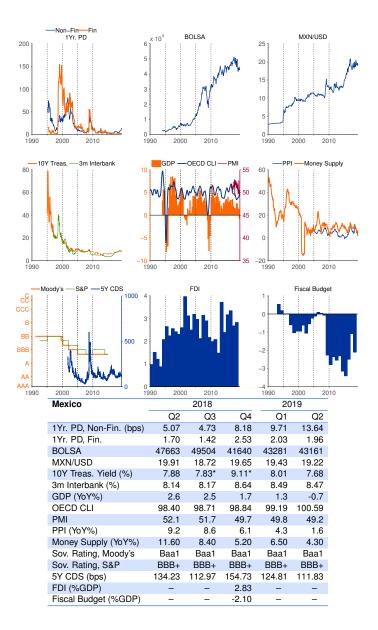
Malawi		2018	2019		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	11.45	5.39	5.11	98.69	100.45
1Yr. PD, Fin.	21.68	11.91	14.21	26.19	35.95
MASI	30737	32373	28984	27441	29956
USD/MWK	726.28	727.78	736.78	728.96	769.70
3m Treas. Yield (%)	14.00*	-	-	-	8.93*

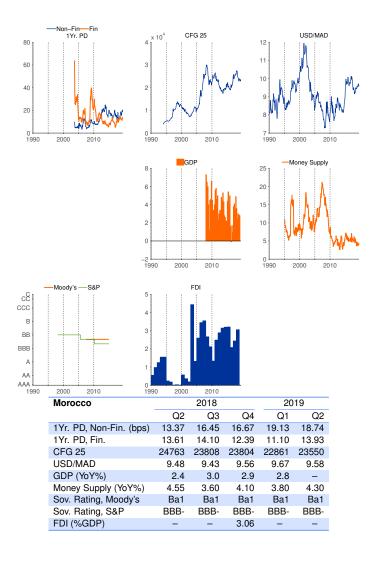


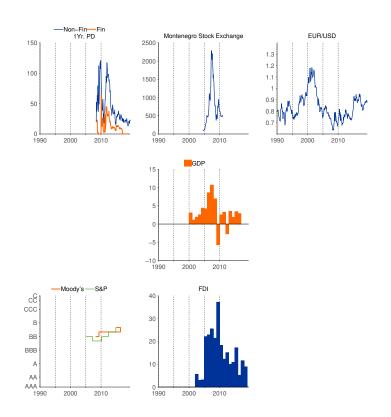




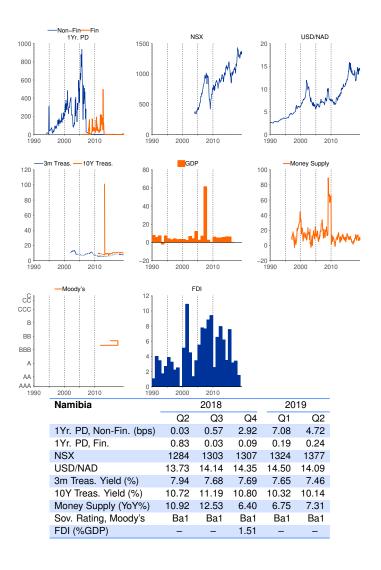
Mauritius		2018			19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	2.22	2.11	2.73	1.11	1.59
1Yr. PD, Fin.	1.17	0.77	0.77	0.73	0.89
SEMDEX	2245	2251	2219	2165	2128
USD/MUR	34.56	34.37	34.30	34.93	35.65
3m Treas. Yield (%)	3.60	3.50	3.40	3.00	3.00
10Y Treas. Yield (%)	-	5.35*	5.42	-	4.35
Money Supply (YoY%)	-1.00	-7.00	-	-	_
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1

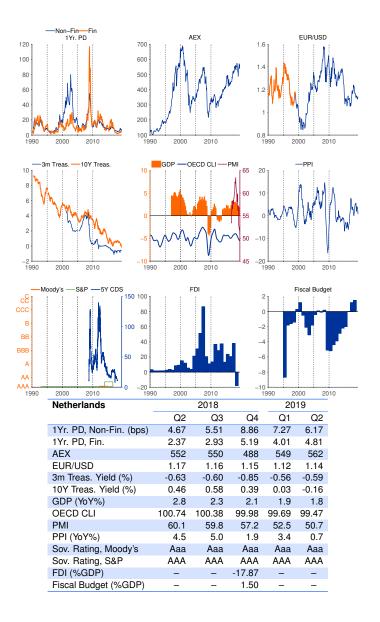


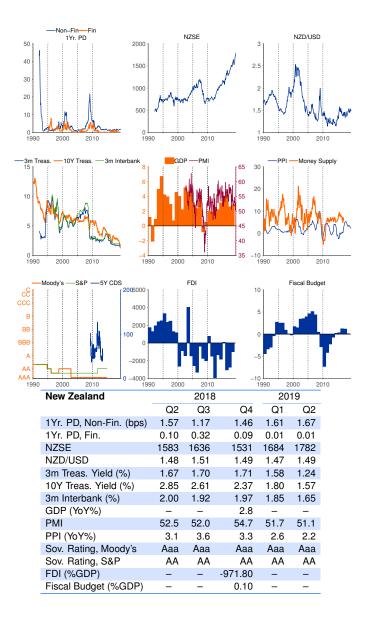


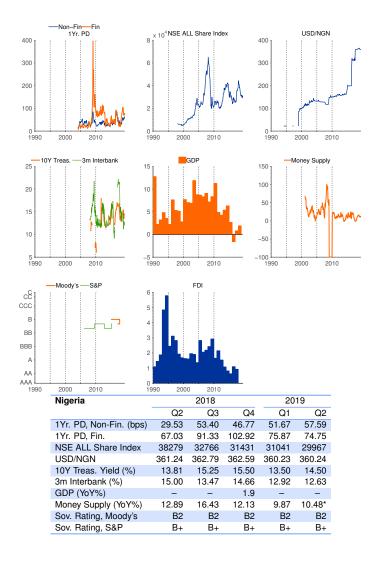


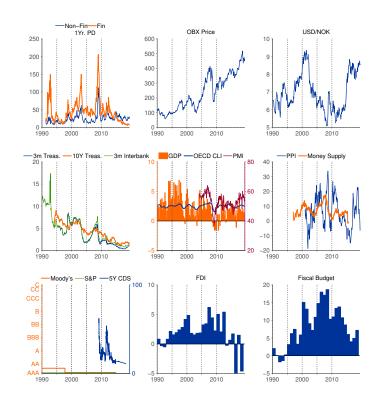
Montenegro		2018		20	2019	
Wontenegro						
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	23.12	14.60	16.64	19.11	21.77	
1Yr. PD, Fin.	0.00	-	-	-	-	
EUR/USD	0.86	0.86	0.87	0.89	0.88	
Sov. Rating, Moody's	B1	B1	B1	B1	B1	
Sov. Rating, S&P	B+	B+	B+	B+	B+	
FDI (%GDP)	-	_	8.91	-	-	



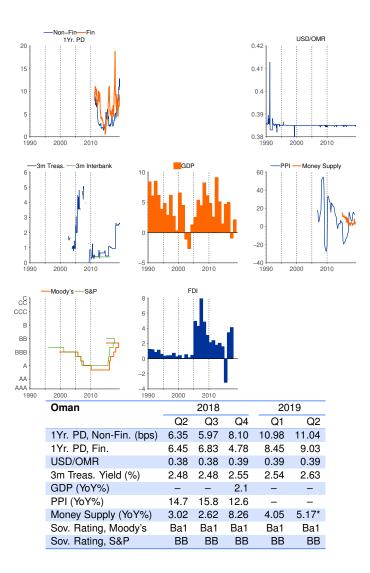


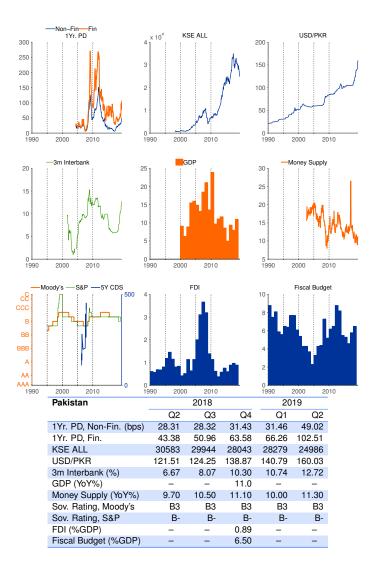


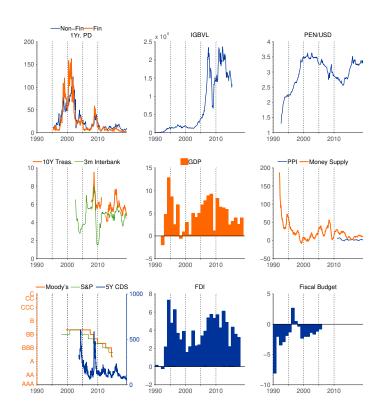




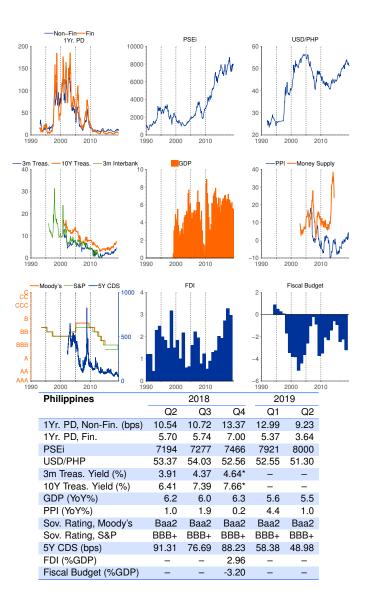
Norway		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	19.32	19.22	29.99	26.24	27.53
1Yr. PD, Fin.	7.23	5.72	11.25	7.71	6.84
OBX Price	486	517	436	465	457
USD/NOK	8.15	8.15	8.64	8.63	8.53
3m Treas. Yield (%)	0.61	0.72	0.80	1.09	1.19
10Y Treas. Yield (%)	1.78	1.94	1.77	1.55	1.47
3m Interbank (%)	0.98	1.10	1.27	1.34	1.52
GDP (YoY%)	1.6	1.6	2.0	1.4	-
OECD CLI	100.69	100.56	100.43	100.14	99.79
PMI	56.0	56.2	55.5	55.9	51.4
PPI (YoY%)	20.1	21.0	7.7	5.2	-6.5
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	-	-	-4.59	-	-
Fiscal Budget (%GDP)	-	-	7.21	-	-



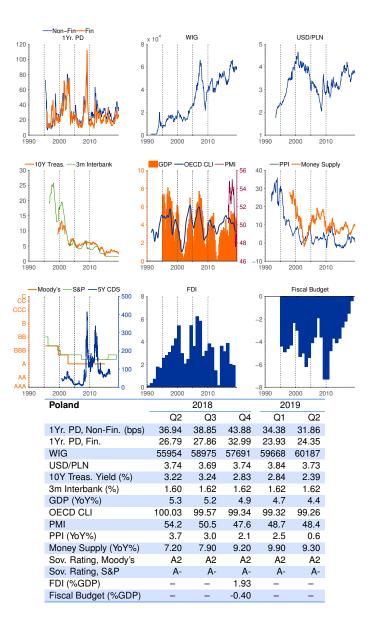


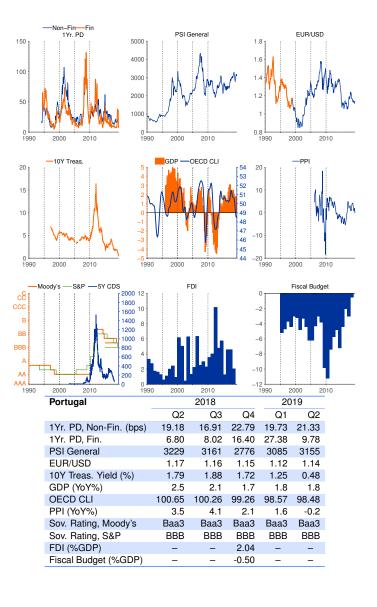


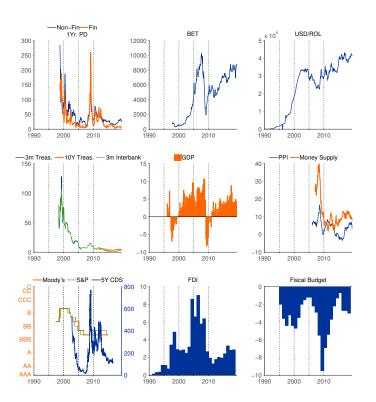
Peru		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	5.15	7.51	6.28	5.87	8.92
1Yr. PD, Fin.	2.45	2.95	2.37	1.60	1.49
PEN/USD	3.28	3.30	3.37	3.32	3.29
10Y Treas. Yield (%)	5.58	5.61	5.64	5.24	4.72
3m Interbank (%)	3.97	4.44	4.90	4.54	4.46
GDP (YoY%)	-	-	4.0	-	-
PPI (YoY%)	1.7	2.3	3.2	1.7	1.2
Money Supply (YoY%)	12.50	11.80	12.10	11.60	10.60
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	89.15	73.53	94.28	67.26	53.64



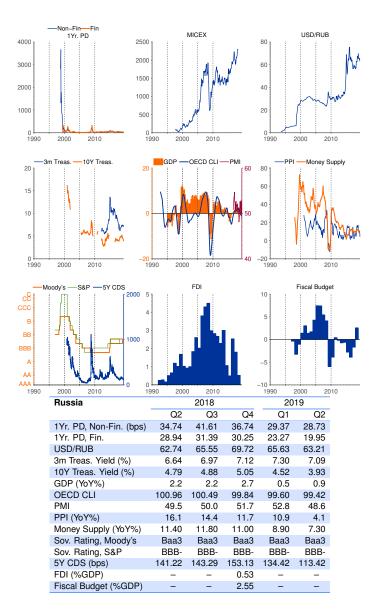




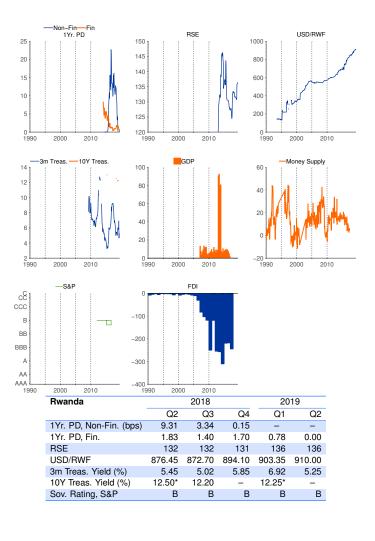


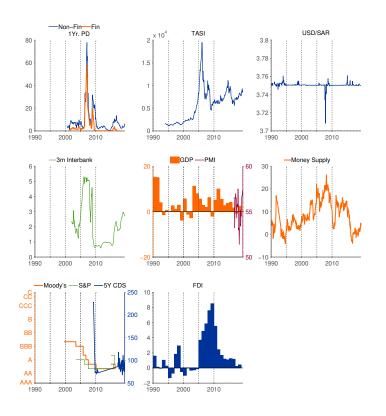


Romania		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	28.28	31.94	28.56	35.02	24.90
1Yr. PD, Fin.	7.50	8.83	9.57	6.58	3.71
BET	8087	8413	7384	8045	8814
USD/ROL	39913.00	40057.00	40589.50	42499.51	41548.52
10Y Treas. Yield (%)	5.21	4.98	4.81	4.79	4.62
3m Interbank (%)	2.99	3.00	2.86	3.06	3.06
GDP (YoY%)	4.1	4.2	4.1	5.0	4.4
PPI (YoY%)	6.1	6.1	5.9	6.7	3.3
Money Supply (YoY%)	12.87	10.25	8.88	9.07	7.75
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	-	-	2.87	-	-
Fiscal Budget (%GDP)	-	-	-3.00	-	-

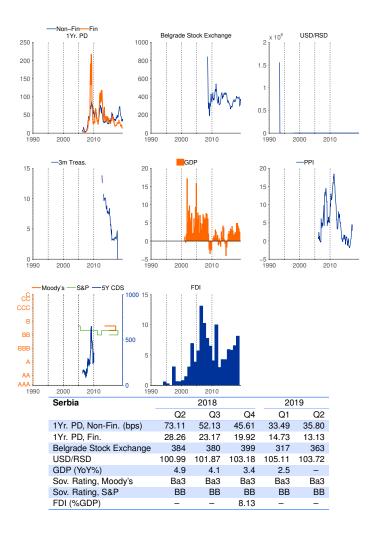


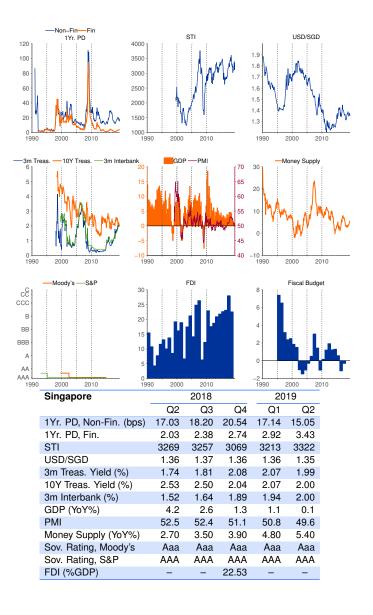


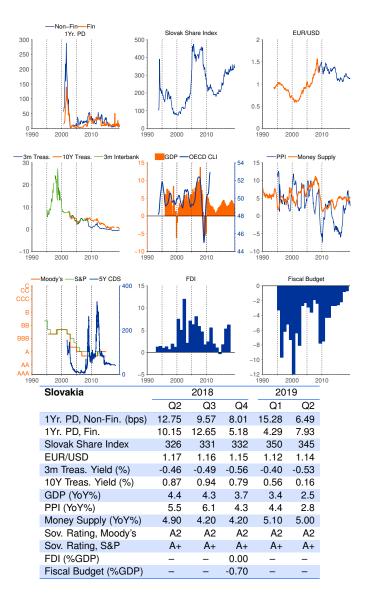




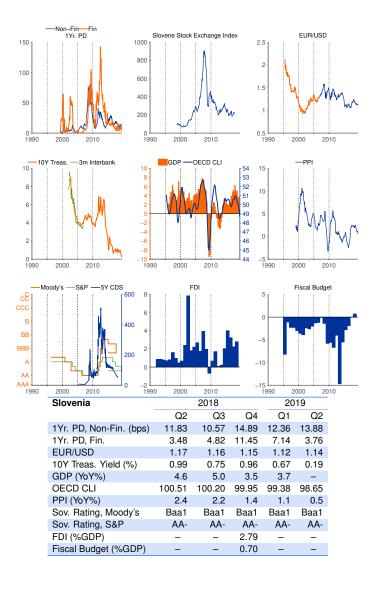
Saudi Arabia		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	2.54	3.18	3.20	3.25	6.24
1Yr. PD, Fin.	0.00	0.01	0.01	0.01	0.02
TASI	8314	8000	7827	8819	8822
USD/SAR	3.75	3.75	3.75	3.75	3.75
3m Interbank (%)	2.59	2.72	2.98	2.87	2.71
GDP (YoY%)	-	-	2.4	-	-
PMI	55.0	53.4	54.5	56.8	57.4
Money Supply (YoY%)	-0.80	2.40	2.80	1.80	3.60
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	91.02	68.22	105.09	86.20	82.37
FDI (%GDP)	-	-	0.41	-	-

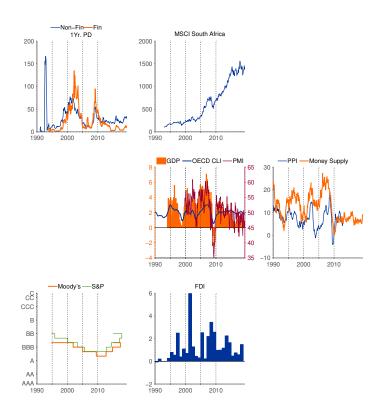




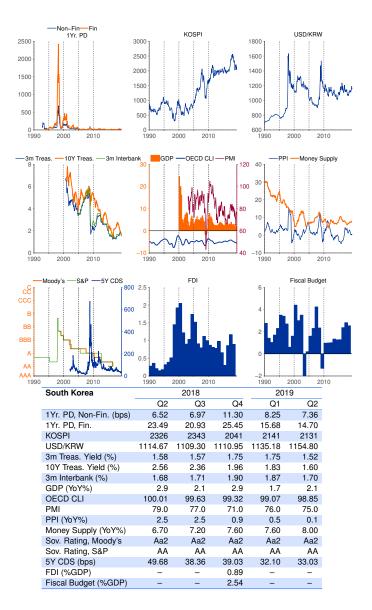




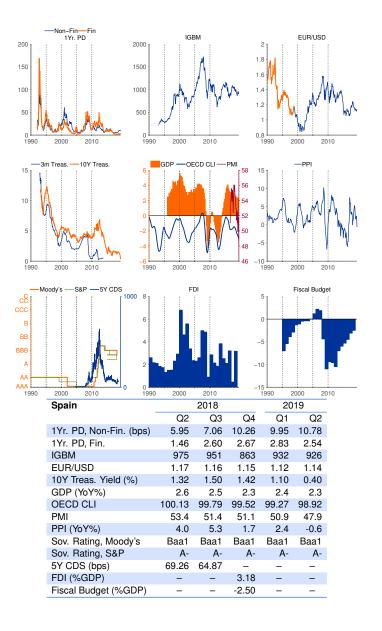




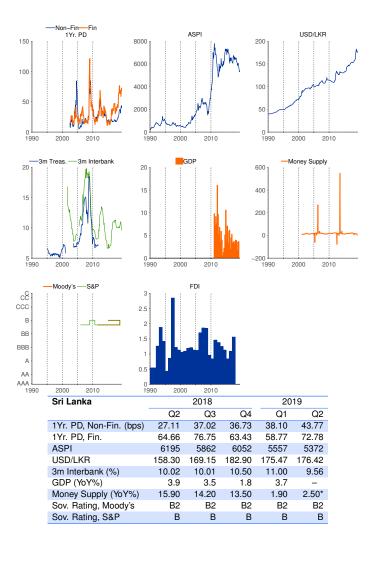
South Africa		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	27.57	29.95	32.55	32.17	34.10
1Yr. PD, Fin.	5.95	8.78	11.68	14.04	8.86
MSCI South Africa	1421	1347	1313	1368	1414
GDP (YoY%)	0.1	1.3	1.1	0.0	-
OECD CLI	100.22	99.94	99.65	99.57	99.57
PMI	48.0	44.5	50.7	45.0	46.2
Money Supply (YoY%)	5.77	7.00	5.56	6.94	8.99
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BB	BB	BB	BB	BB
FDI (%GDP)	-	-	1.49	-	-

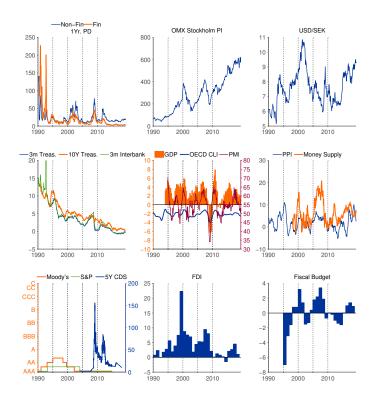




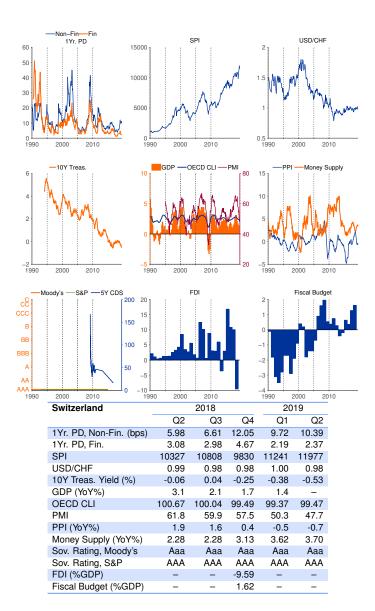




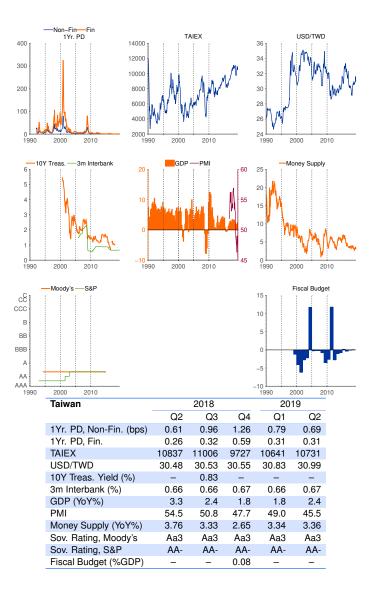


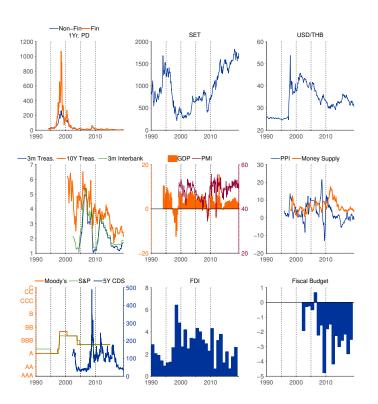


Sweden		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	18.74	15.85	20.43	17.76	18.27
1Yr. PD, Fin.	3.05	2.49	3.98	3.55	2.63
OMX Stockholm PI	574	613	525	587	614
USD/SEK	8.94	8.89	8.85	9.29	9.28
3m Treas. Yield (%)	-0.65	-0.70	-0.45	-0.40	-0.40
10Y Treas. Yield (%)	0.50	0.64	0.47	0.32	0.03
3m Interbank (%)	-0.35	-0.46	-0.13	0.01	-0.03
GDP (YoY%)	2.5	1.6	2.3	2.0	1.4
OECD CLI	100.18	99.78	99.17	98.76	98.57
PMI	55.2	55.1	52.1	52.7	52.0
PPI (YoY%)	8.0	10.1	5.6	6.3	2.5
Money Supply (YoY%)	5.44	4.48	5.87	5.44	6.34
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	-	-	1.06	-	-
Fiscal Budget (%GDP)	-	-	0.90	-	_

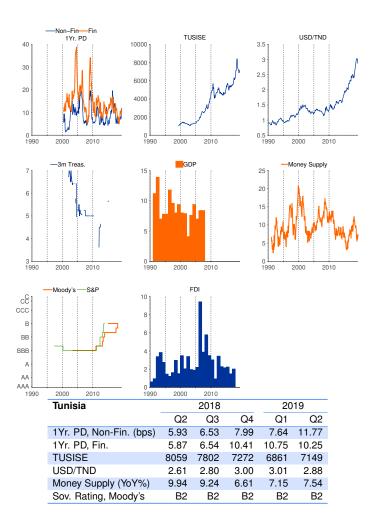


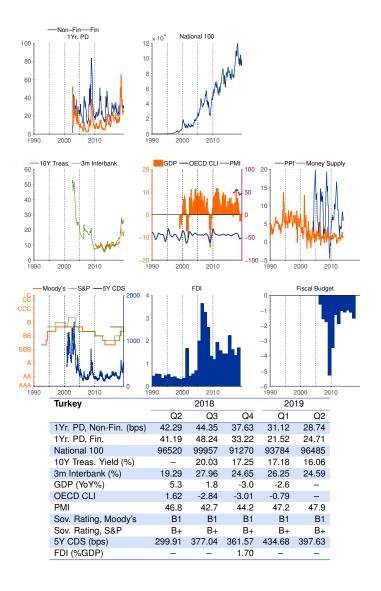


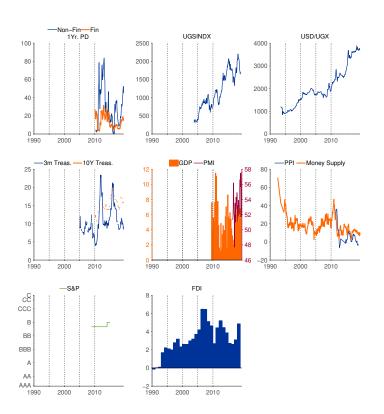




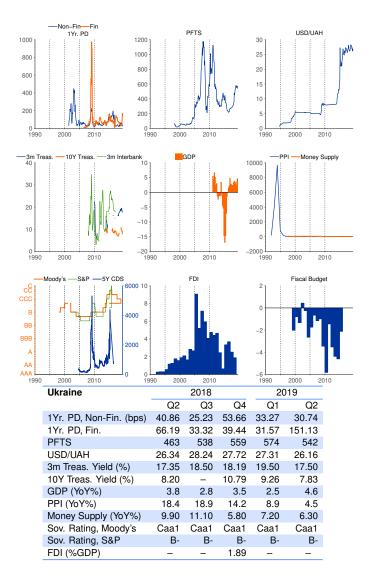
Thailand		2018		20	19
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	5.89	5.08	7.77	6.30	5.71
1Yr. PD, Fin.	0.78	0.36	0.49	0.21	0.20
SET	1596	1756	1564	1639	1730
USD/THB	33.04	32.32	32.33	31.74	30.68
3m Treas. Yield (%)	1.29	1.31	1.61	1.69	1.71
10Y Treas. Yield (%)	2.58	2.80	2.48	2.43	2.12
3m Interbank (%)	1.58	1.59	1.86	1.88	1.88
GDP (YoY%)	4.7	3.2	3.6	2.8	2.3
PMI	52.8	51.5	49.5	51.4	49.4
PPI (YoY%)	1.8	1.3	-0.5	0.4	-1.1
Money Supply (YoY%)	5.15	4.85	4.71	3.82	3.43
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	49.38	41.28	44.00	42.59	35.72
FDI (%GDP)	-	-	2.62	-	-
Fiscal Budget (%GDP)	-	-	-2.52	-	-

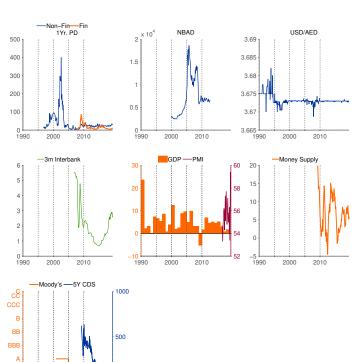






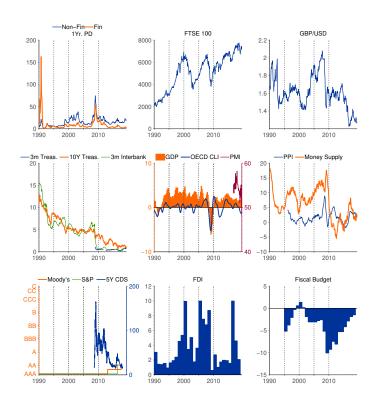
Uganda	2018			2019	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	19.21	28.76	32.63	46.28	45.31
1Yr. PD, Fin.	9.96	15.79	15.38	19.33	14.63
UGSINDX	2089	1825	1649	1701*	-
USD/UGX	3884.15	3816.02	3705.94	3714.38	3694.75
3m Treas. Yield (%)	10.52	9.79	10.80	10.11	9.20
10Y Treas. Yield (%)	-	17.25*	17.00	15.75*	15.95
GDP (YoY%)	5.0	6.6	6.8	5.6	-
PMI	53.2	54.2	56.6	51.7	57.8
PPI (YoY%)	1.1	-2.7	-3.3	-2.8*	-
Money Supply (YoY%)	12.78	10.77	8.23	6.78	7.14
Sov. Rating, S&P	В	В	В	В	В
FDI (%GDP)	-	-	4.87	-	-



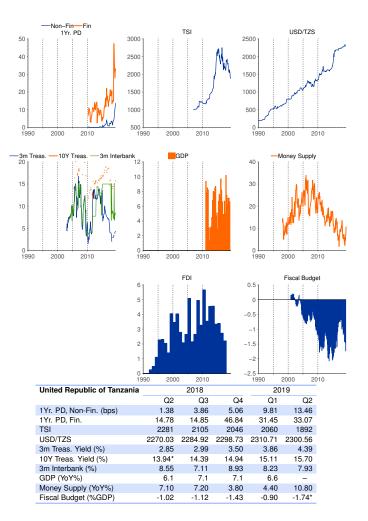


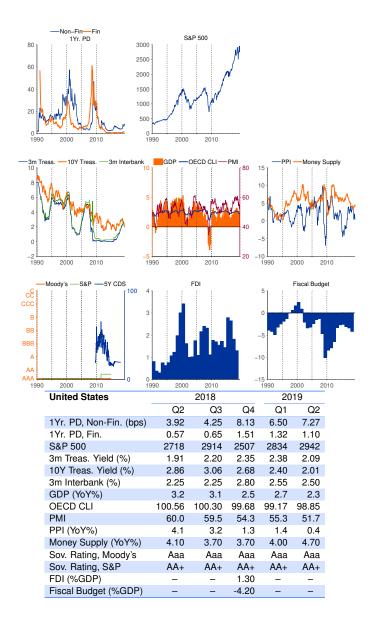
2000 2010						
United Arab Emirates	2018			2019		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	23.48	21.32	25.06	32.80	33.55	
1Yr. PD, Fin.	5.18	4.54	8.26	6.90	9.94	
USD/AED	3.67	3.67	3.67	3.67	3.67	
3m Interbank (%)	2.43	2.45	2.84	2.79	2.58	
GDP (YoY%)	-	-	1.7	-	-	
PMI	57.1	55.3	54.0	55.7	57.7	
Money Supply (YoY%)	6.19	8.35	7.75	6.88	5.91	
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2	

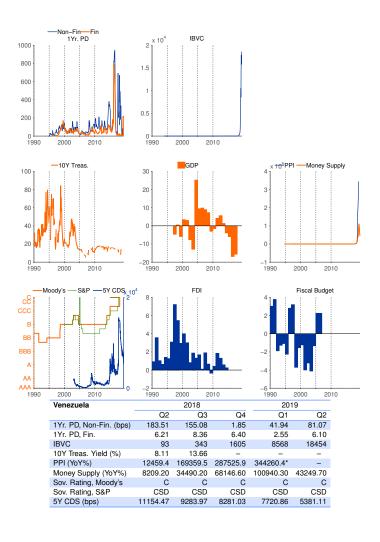
AA AAA 1990

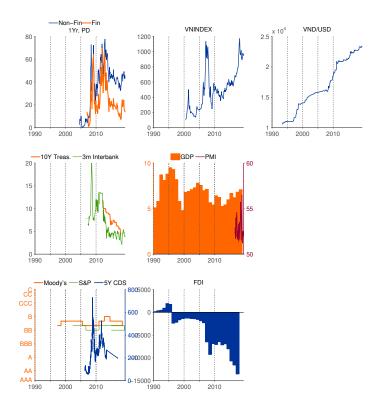


United Kingdom	2018			2019	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	13.67	15.04	22.98	19.88	19.03
1Yr. PD, Fin.	2.13	2.48	3.73	2.66	2.80
FTSE 100	7637	7510	6728	7279	7426
GBP/USD	1.32	1.30	1.28	1.30	1.27
3m Treas. Yield (%)	0.61	0.77	0.72	0.80	0.78
10Y Treas. Yield (%)	1.28	1.57	1.28	1.00	0.83
3m Interbank (%)	0.67	0.80	0.91	0.85	0.77
GDP (YoY%)	1.4	1.6	1.4	1.8	1.2
OECD CLI	100.03	99.52	98.90	98.67	98.82
PMI	54.0	53.7	54.3	55.1	48.0
PPI (YoY%)	3.3	3.1	2.4	2.2	1.6
Money Supply (YoY%)	1.70	0.80	2.10	2.10	2.30
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
Sov. Rating, S&P	AA	AA	AA	AA	AA
FDI (%GDP)	-	-	2.08	-	-
Fiscal Budget (%GDP)	-	-	-1.50	-	-









Vietnam		2018	2019		
	Q2	Q3	Q4	Q1	Q2
Yr. PD, Non-Fin. (bps)	46.83	40.84	47.19	43.65	43.37
1Yr. PD, Fin.	22.35	18.41	22.71	15.07	13.81
VNINDEX	961	1017	893	981	950
VND/USD	22938.00	23315.00	23175.00	23189.00	23301.00
10Y Treas. Yield (%)	4.60*	-	-	-	-
3m Interbank (%)	2.05	4.40	5.25	4.85	3.80
GDP (YoY%)	-	-	7.1	-	-
PMI	55.7	51.5	53.8	51.9	52.5
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
Sov. Rating, S&P	BB	BB	BB	BB	BB

D Data notes

This appendix provides a comprehensive list of the macroeconomic and capital market data provided in Appendix **??** as well as their sources. Most of the data was obtained from Bloomberg. In some cases, the data was not available in Bloomberg and was obtained directly from primary sources. In either case, the primary sources for the data are listed in the tables below. The data was retrieved during July 2019 and every effort has been made to verify its accuracy.

Stock index (top-center graph) The one-year return on an economy's stock index is one input variable for RMI's default forecast model. The stock indices used in the model are the ones that are displayed in Appendix **??**. A list of the stock indices included in Appendix **??** can be found here.

FX rate (top-right graph) Foreign exchange (FX) rates are quoted by market convention against the US dollar. For Eurozone countries, a fixed official rate is used to convert the domestic currency to the Euro prior to the introduction of the common currency. In the graphs, the FX rate for the domestic currency before the economy adopted the Euro is in orange, and the FX rate for the Euro after the Euro was adopted is in blue. The table below shows the conversion dates and rates. The exchange rate for the Cypriot Pound is excluded due to scaling reasons.

Economy	Conversion Date	Conversion Rate (per Euro)	Economy	Conversion Date	Conversion Rate (Per Euro)
Austria	31/12/1998	13.7603	Italy	31/12/1998	1936.27
Belgium	31/12/1998	40.3399	Luxembourg	31/12/1998	40.3399
Estonia	31/12/2010	15.6466	Malta	31/12/2007	0.4293
Finland	31/12/1998	5.94573	Netherlands	31/12/1998	2.20371
France	31/12/1998	6.55957	Portugal	31/12/1998	200.482
Germany	31/12/1998	1.95583	Slovakia	31/12/2008	30.126
Greece	31/12/2000	340.75	Slovenia	31/12/2006	239.64
Ireland	31/12/1998	0.787564	Spain	31/12/1998	166.386

Conversion to Euro

10-year treasury bond yield (middle-left graph) All 10-year treasury bond yields are based on Bloomberg indices except for the following list: Bank Negara Malaysia for Malaysia, Korea Financial Investment Association for South Korea and Philippine Dealing & Exchange Corp for Philippines.

3-month government bond yield (middle-left graph) The primary sources of the 3-month government bond yields are listed in here.[†]

3-month interbank rate (middle-left graph) The primary sources of the 3-month interbank rates can be found here.

GDP (middle-center graph, left axis) Real GDP YoY changes are seasonally-adjusted except for China, Hong Kong, Iceland, India, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand. A list of primary sources of the GDP data can be found here.

[†]The RMI CRI model uses Germany's three-month Bubill rate for all eurozone countries after their adoption of the euro. For the period before joining the eurozone, their own interest rates are used where available.

OECD CLI (middle-center graph, right axis) The OECD Composite Leading Indicator for each economy is intended to provide early signals of turning points between different trends in the economic cycle. For forecasting purposes, peaks in CLI are candidate early signals of downturns in the economic cycle, and troughs in the CLI are candidate early signals of upturns in the economic cycle. More information can be obtained at www.oecd.org/std/clits. The OECD CLI shown in Appendix **??** is amplitude adjusted with a deduction of 50 for the purpose of presentation along with the PMI.

PMI (middle-center graph, right axis) The Purchasing Manager's Index or similar indices are used to reflect an economy's manufacturing activities. An index reading above 50 indicates an expansion of manufacturing activity while a reading below 50 indicates a contraction. An exception is the Business Survey Index used in South Korea, which has 100 as its benchmark. A list of primary sources of the Purchasing Managers Index data can be found here.

PPI (middle-right graph) The Producers' Price Index or similar indices are presented as YoY changes. A list of primary sources of the Producers' Price Index data can be found here.

Money Supply (middle-right graph) YoY growth of money supply uses M3 when it is available for an economy. The exceptions are: Brazil, Chile, China, Cyprus, the Czech Republic, Indonesia, Jordan, Kazakhstan, Latvia, Lithuania, Mexico, Nigeria, Norway, Pakistan, Peru, Romania, Russia, Sri Lanka, Taiwan, Thailand and the US where M2 is used; and Croatia and the UK where M4 is used. For Eurozone countries, data after the adoption of the Euro represents total money supply growth of the Euro. A list of primary sources of the Money Supply data can be found here.

Sovereign credit ratings (bottom-left graph, left axis) For most of the economies, the Standard & Poor's and Moody's sovereign ratings are for foreign currency long term debt. Moody's ratings for France, Germany, India, Japan, Netherlands, Singapore, Switzerland, Taiwan, United Kingdom and the United States are foreign currency long term issuer ratings instead. Among the above mentioned economies, France, Germany, Switzerland, United Kingdom and the United States ratings are cited from Moody's website directly, with the remainder of the data from Moody's and S&P retrieved from Bloomberg. For graphical purposes, selective or restricted defaults are reflected as C grades in the graphs. For example, according to S&P data, Indonesia had selective default events on March 29, 1999; April 17, 2000 and April 23, 2002, seen as C grades in the graphs above.

5Y CDS spread (bottom-left graph, right axis) 5-year Credit Default Swap spreads are for each economy's long term sovereign debt. All of the CDS data is sourced from Bloomberg.

FDI (bottom-center graph) FDI into each economy is presented as a percentage of GDP. The World Bank is the primary source of all FDI data.

Fiscal budget (bottom-right graph) Fiscal budget is presented as a percentage of GDP. A list of primary sources of the Fiscal Budget data can be found here.

About The Credit Research Initiative

The Credit Research Initiative (CRI) was launched by Professor Jin-Chuan Duan in July 2009 at the Risk Management Institute of the National University of Singapore. Aiming at "Transforming Big Data into Smart Data", the CRI covers over 68,000 public firms and produces daily updated Probabilities of Default (1-month to 5-year horizon), Actuarial Spreads (1-year to 5-year contract) and Probability of Default implied Ratings on over 34,000 currently active, exchange-listed firms in 128 economies. The CRI also distributes historical time series of over 34,000 inactive firms due to bankruptcy, corporate consolidation or delisting for other reasons. In addition, the CRI produces and maintains Corporate Vulnerability Indices (CVI), which can be viewed as stress indicators, measuring credit risk in economies, regions and special portfolios.

As a further step, the CRI converts smart data to actionable data to meet the customized demands of its users and offers bespoke credit risk solutions leveraging on its expertise in credit risk analytics. A concrete example is our development of the BuDA (Bottom-up Default Analysis) toolkit in collaboration with the IMF. BuDA is an automated analytic tool based on the CRI PD system, enabling IMF economists to conduct scenarios analyses for the macro-financial linkage.

The CRI publishes Weekly Credit Brief and Quarterly Credit Report, highlighting key creditrelated events, offering insights based on the CRI PD of the entities involved, and providing useful statistics on credit risk of economies and sectors.

For more information about the CRI project, please visit our main site at http://rmicri.org

Usage, redistribution and publication of data

For more information please contact us:

Telephone: +65 6516 3380

Email: rmicri@nus.edu.sg

QCR Editors:

Anthony Prayugo Luo Weixiao

Contributors to this issue:

Benjamin Lau Glendon Gwee Shania Mustika Vishal Kumar Singh