# Quarterly Credit Report

Q2/2018

Volume 8, 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 8, Issue 1 covers the second quarter of 2018. 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 66,000 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 June 2018, the PD system covers 128 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.

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# **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

NIM Net Interest margin

NODX 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

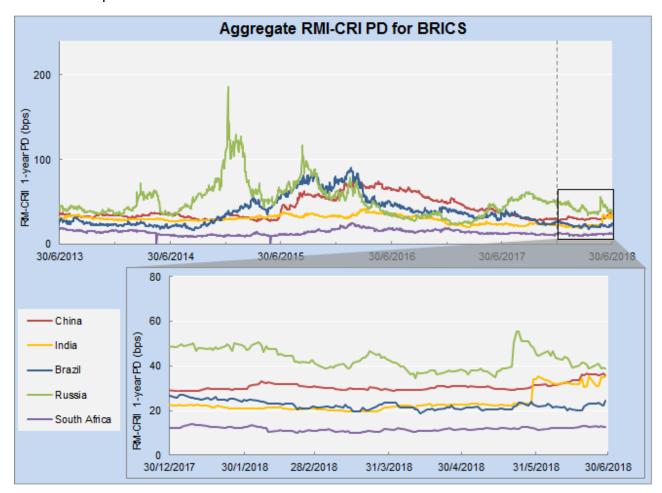
SDF Standing Deposit Facility
SLF Standing Lending Facility

WAIR Weighted average interest rate WMP Wealth Management Product

YoY Year On Year

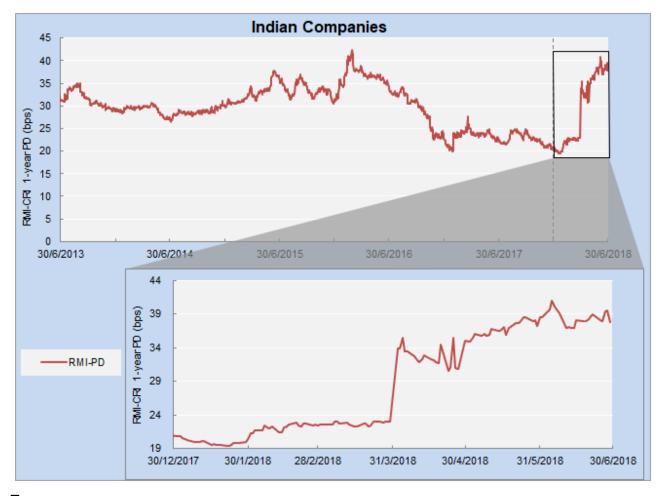
# **BRICS**

In the second quarter of 2018, listed companies in BRICs see a worsening credit outlook other than Russia. The RMICRI aggregate PDs for China, Brazil, South African and India worsened as compared to the last quarter in line with weaker economy indicators. The weaker credit profile for Chinese companies is in line with its slower 6.7% Q2 2018 GDP growth as the government continues to tackle debt risks which weigh on growth. India is likely to lodge a slower GDP growth for the April to June quarter. Uncertainties around trade and financial markets have serious risks for the rupee. India's banking industry is still facing the problem of non-performing assets which will continue to weigh on economy growth. South Africa's economy growth is also expected to be weak as consumer demand which has always been a key driver of South Africa's economy growth, is expected to experience slow growth. Brazil experienced a contraction of 0.99% in Q2 2018, caused by an 11-day truckers' strike that paralyzed the economy. Russia, the only bright spot in the BRICS region, has seen its GDP growth grew more than the previous quarter with a 1.8% YoY expansion. It was the seventh straight guarter of growth after two years of contraction due to the slump in commodity price. The expansion was helped by an increase in consumption from hosting the World Cup.



# **Indian Companies**

The aggregate 1-year RMI PD for Indian companies increased during the second quarter of 2018, with a significant jump of 12.3 bps in April 2018. The economy experienced the highest growth rate since the second quarter of 2016, supported by a surge in investment. On the production side, this growth could be attributed to the growth in manufacturing, agriculture and construction sectors. Inflation rate saw a significant increase to an annual rate of 5.77% in June along with an increase in wholesale prices in light of rising prices for fuel and power. Current account deficit narrowed slightly but on a YoY basis the deficit is still significantly higher due to large merchandise imports. Monetary wise, 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 2018 grew at an annual rate of 7.7% against a revised 7% expansion in the previous quarter. Sectors that experienced strong growth YoY include manufacturing (9.1%), agriculture, forestry and fishing (4.5%), public administration and defence (13.3%), construction (11.5%), mining and quarrying (2.7%), and utilities (7.7%). IMF slightly lowered India's growth forecast to 7.3% for 2018 as compared to the earlier forecast of 7.4% due to rapid monetary tightening and soaring oil prices. However, India's economic growth is still fastest in the world.<sup>1,2</sup>

- The manufacturing sector was at its peak of improvement rate in June 2018 since December 2017, evident in the greatest rise in output and new orders in 2018. The Nikkei India Manufacturing PMI rose to 53.1 from 51.2 in May, signalling an upturn in the sector fuelled by improved demand conditions and holistic output growth. Indian manufacturers increased employment and purchasing activity to cope with the demands, which led to a job creation level being at its strongest in 2018 and highest growth in purchasing activity since January. As the rise in input costs was at its peak since July 2014, manufacturers had to increase prices rapidly. In spite of the growing demands, business confidence was the lowest since October 2017. Optimistic output forecasts signalled that demands will grow over the next 12 months.<sup>3</sup>
- The annual rate of inflation, based on monthly Wholesale Price Index (WPI), significantly increased to an annual rate of 5.77% in June from an annual rate of 2.47% for the month of March. The wholesale price index increased by 1.1% over the previous month, which was mainly due to rising prices for fuel and power. The MCX India Crude Oil Spot Index increased to 5089 from 4180 in Q1 2018 amid improvements in domestic demand.<sup>4,5</sup>
- India's current account deficit (CAD) decreased to USD 13.0bn (1.9% of GDP) in Q1 2018 from USD 13.7bn (2.1% of GDP) in Q4 2017 but was substantially higher than USD 2.6bn (0.4% of GDP) in the same quarter in the preceding year. The widening of the CAD on a YoY basis is primarily due to a higher trade deficit of USD 41.6bn brought about by a larger increase in merchandise imports relative to exports. Net services receipts increased on a YoY basis due to a rise in net earnings from software services and other business services. Private transfer receipts, mainly representing remittances by Indians employed overseas, increased by 15.1% to USD 18.1bn as compared to the preceding year.<sup>6</sup>
- During Q2 2018, the Indian Rupee (INR) weakened 6.39 % against the US dollar. The Fed Fund rate hike in June contributed to the weakening of the INR together with concerns over a widening current account deficit. The INR weakness likely resulted from foreign portfolio outflows during the quarter as USD 9.08bn were withdrawn from debt and equity markets during Q2.7

#### Monetary

- According to the bi-monthly monetary policy statement on June 6, 2018, the RBI increased the policy rate (repo rate) to 6.25%. Consequently, the reverse repo rate under the liquidity adjustment facility was adjusted to 6.00%. Similarly, the Bank Rate increased to 6.50%.<sup>8</sup>
- During April-May 2018, liquidity in the system remained in surplus in general. Reflecting easy liquidity conditions, The weighted average call rate (WACR) slightly dropped from 5.96% in March to 5.89% in April. However, surplus liquidity in the system moderated considerably in the first half of May and the mainly. However, due to inflows on account of the goods and services tax (GST), the system moved into deficit for a while in May before bouncing back into surplus in late May. (insert news article if required)<sup>9</sup>
- The Monetary Policy Committee notes that there are increasing uncertainties surrounding the baseline inflation path mainly due to the volatility in crude oil prices. Since the MPC's meeting in early April, the price of Indian crude basket saw a 12% jump from US66abarreltoUS 74. Retail inflation rose steeply to 4.6% in April following a 0.8% rise in inflation excluding food and fuel to an ex-HRA level of 5.3%. This was then followed by retail inflation of 4.9% in May which further escalated to 5% in June, due to an increase in inflation in fuel and in items other than food and fuel. RBI continues to be committed to keeping headline inflation close to 4.00% on durable basis. 10,11

• Amidst Indian corporate borrowers' poor credit discipline, the RBI resorts to propose a draft guideline to mandate all borrowers enjoying more than INR 1.5bn working capital limit to borrow through the demand loan route for at least 40% of the limit before resorting to other modes such as cash credit, overdraft and bill discounting. The objective is to allow banks to predict their outflow. Since cash credit results in sudden outflows for banks, the burden to recover this decline in liquidity comes at the door of RBI through its repo operations, which may result in greater short-term rates. The draft norms will be beneficial to banks' liquidity; but companies will face larger short-term repayments due to demand loans.<sup>12</sup>

# **Funding & Liquidity**

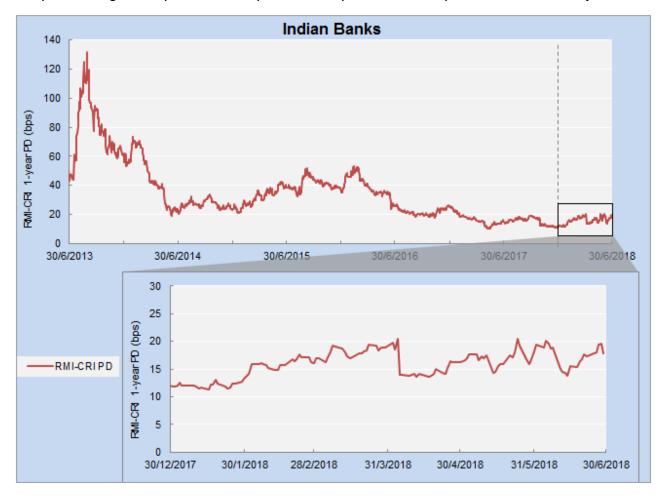
- The yield on India's 10-year government sovereign bonds generally increased during Q2 2018 from 7.40% at the end of Q1 2018 to 7.90% at the end of Q2 2018. After experiencing a huge decline in March 2018 which continued till early April, the bond yield bounced back reaching a 2-year high in June.<sup>13</sup>
- The RBI has announced in May 2018 that it would be infusing more liquidity into the system amidst persistent high bond yields. The central bank said that it would make purchase of Government securities under Open Market Operations (OMO) of up to INR 100bn on June 21 in an attempt to manage liquidity. The increasing rate at which currency in circulation is increasing, a widening current account and slowing inflows into the capital account have contributed to the need for open market operations.<sup>14,15</sup>

# **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 2018, all of which have 'stable' outlook, unchanged from the previous guarter.<sup>16</sup>

# **Indian Banks**

The aggregate 1-year RMI PD for Indian banks remained stable but saw a slight uptrend from April 2018 to June 2018. Non-performing loans continue to plague both the private and public banks, depressing the profitability of Indian banks. Continuous aids and reforms by the RBI like the PSU bank capital injection and liquidity absorption tool aim to alleviate the problem. RBI is expected to remain cautious in regulating interest rate to mitigate the non-performing loans problem and prevent its spread to other parts of the economy.



# **Profitability**

- Non-financial borrowings increased 4.91% to INR 3.83tn on June 22, 2018 from INR 3.66tn on March 30, 2018. Other liabilities such as time deposits with non-financial institutions decreased to INR 4.78tn in Q2 2018 from INR 5.76tn in Q1 2018.<sup>17</sup>
- The Credit-Deposit ratio for the banking system increase to 75.89% June 22, 2018 from 75.39% on March 30, 2018. This was mainly due to the decrease in deposits from INR 114.7tn to INR 113.5tn during Q2 2018.<sup>18</sup>

• RBI has indicated that it may not relax the new framework for the resolution of stressed loans despite requests from banks. This came after the announcement of new rules released on February 12, 2018 which mandates that lenders have to implement a resolution plan within 180 days for defaulted loan accounts above INR 20bn. This gives lenders less discretion which will increase the amount of bad loans, which currently stands at INR 8.82tn. Banks will be forced to make additional provisioning for these accounts, keeping their profitability under pressure.<sup>19</sup>

# **Funding & Liquidity**

- The weighted-average call money rate, the interest rate on short-term finance repayable on demand, increased from 6.15% as of March 30, 2018 to 6.17% as of June 29, 2018.
   The call money rates were generally lower than the repo rate during Q4, indicating a stable banking system.<sup>20</sup>
- The amount of cash on the balance sheet of Indian banks increased from INR 604.8bn on March 30, 2018 to INR 707.2 on June 22, 2018. Lenders are trying to increase liquidity as provisions for bad loans rise. The RBI may curb liquidity in the market while at the same time not yield to the temptation to cut interest rates.<sup>21</sup>
- Deposit rates generally remained stable in Q2 2018. According to the Reserve Bank of India's daily call money rates, interest rates decreased to 6.40% on June 15, 2018, from 6.90% in Q1 2018.<sup>22</sup>
- During Q4 2017, the RBI withdrew a total of INR 15.13tn from the banking system via liquidity operations. During Q1 2018, the month of March witnessed the highest figure with RBI withdrawing INR 7.13tn via its liquidity operations.<sup>23,24,25</sup>

## **Asset Quality**

• "Based on RBI's June Financial Stability Report, the banking system's gross bad loan ratio is expected to rise to 12.2% of the total loan book in March 2019 from 11.6% in March 2018 amid considerable non-performing assets (NPA) accumulation. The banks' gross NPAs at the end of March 2018 has increased by 16% from that at the end of December 2017. A break-up of the NPAs indicates that 21 public sector banks (PSBs) saw their bad loans pile rise by 15.4% in the quarter ending in March 2018 compared to December 2017's figures; while that of 18 private banks increased by 17.9% in the March 2018 quarter from the previous quarter.<sup>26</sup>

<sup>&</sup>lt;sup>1</sup>May 31, 2018, India GDP Annual Growth Rate, Trading Economics, tradingeconomics.com

<sup>&</sup>lt;sup>2</sup>Jul 16, 2018, IMF lowers India's growth projection, but it still retains world's top spot , The Economic Times, http://economictimes.indiatimes.com/

<sup>&</sup>lt;sup>3</sup>Jul 2, 2018, Nikkei India Manufacturing PMI, Markit Economics, markiteconomics.com

<sup>&</sup>lt;sup>4</sup>Jul 16, 2018, Index Numbers of Wholesale Price in India. Review for the month of June, 2018, DIPP eaindustry.nic.in

<sup>&</sup>lt;sup>5</sup>Jul 2, 2018, Crude Oil Rate, The Economic Times, http://economictimes.indiatimes.com/

<sup>&</sup>lt;sup>6</sup>Jun 13, 2018, Developments in Indias Balance of Payments during the Fourth Quarter (January-March) of 2017-18, The Reserve Bank of India, rbi.org.in

<sup>&</sup>lt;sup>7</sup>Jul 1, 2018, Daily Trends in FPI Investments, National Securities Depository Limited (NSDL), fpi.nsdl.co.in

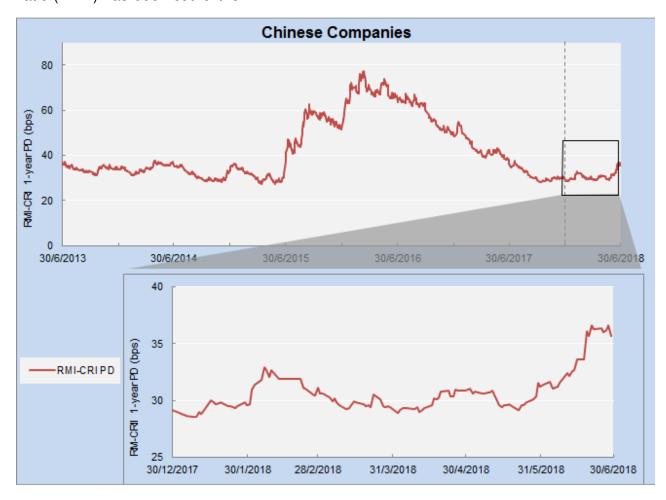
<sup>&</sup>lt;sup>8</sup>Jun 6, 2018, Second Bi-monthly Monetary Policy Statement, 2018-19 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, The Reserve Bank of India, rbi.org.in

<sup>&</sup>lt;sup>9</sup>Jun 6, 2018, Second Bi-monthly Monetary Policy Statement, 2018-19 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, The Reserve Bank of India, rbi.org.in

- <sup>10</sup>Jun 6, 2018, Second Bi-monthly Monetary Policy Statement, 2018-19 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, The Reserve Bank of India, rbi.org.in
- <sup>11</sup>Aug 1, 2018, Third Bi-monthly Monetary Policy Statement, 2018-19 Resolution of the Monetary Policy Committee (MPC) Reserve Bank of India, The Reserve Bank of India, rbi.org.in
- <sup>12</sup>Jun 18, 2018, RBI wants banks to discipline Indian corporates on working capital, Livemint, http://www.livemint.com/
- <sup>13</sup>Jul 2, 2018, India Govt Bond Generic Bid Yield 10 Year, Bloomberg, http://www.bloomberg.com/
- <sup>14</sup>May 4, 2018, RBI To Ease Liquidity Through Purchase Of Government Bonds, Bloomberg Quint, http://www.bloombergquint.com/
- <sup>15</sup>Jun 19, 2018, RBI to purchase Rs 10,000 crore Government securities through OMO on Thursday, Money Control, http://www.moneycontrol.com/
- <sup>16</sup>Jul 2, 2018, Rating: India Credit Rating, Country Economy, http://countryeconomy.com/
- <sup>17</sup>Jul 13, 2018, Scheduled Commercial Banks Business in India, Reserve Bank of India, rbi.org.in
- <sup>18</sup>Jul 13, 2018, Scheduled Commercial Banks Business in India, Reserve Bank of India, rbi.org.in
- <sup>19</sup>Apr 23, 2018, What RBIs new bad loan rules mean for banks, Livemint, http://www.livemint.com/
- <sup>20</sup>Jul 6, 2018, Cash Reserve Ratio and Interest Rates, Reserve Bank of India, rbi.org.in
- <sup>21</sup>Jul 13, 2018, Scheduled Commercial Banks Business in India, Reserve Bank of India, rbi.org.in
- <sup>22</sup>Jul 10, 2018, Reserve Bank of India Bulletin July 2018, Reserve Bank of India, rbi.org.in
- <sup>23</sup>Jul 10, 2018, Reserve Bank of India Bulletin July 2018, Reserve Bank of India, rbi.org.in
- <sup>24</sup>Jun 11, 2018, Reserve Bank of India Bulletin June 2018, Reserve Bank of India, rbi.org.in
- <sup>25</sup>May 10, 2018, NEED AUGUST 10 or 11 ISSUE Reserve Bank of India Bulletin May 2018, Reserve Bank of India, rbi.org.in
- <sup>26</sup>Jul 5, 2018, Will the NPA black hole suck in the country's entire banking system? , The Economic Times, http://economictimes.indiatimes.com/

# **Chinese Companies**

China GDP YoY growth slips by 0.1pps in the second quarter of 2018 amid US trade tensions and aggressive deleveraging activities. The 1-year aggregate PD for Chinese firms shows an upward trend in Q2 2018 as a wave of defaults and contraction in bond financing has hit the economy in Q2 2018. The slowdown in GDP growth was mainly due to contraction in public investment and fixed assets. Despite US trade tensions narrowed China's trade balance in Q2 2018, the figure is much higher than the market expectation as exporters were rushing shipments before US tariffs went into effect. To prevent the bond market from collapsing, a series of regulations have been imposed to curb lending, such as the reclassification of loans overdue for 90 days or more into Non-Performing Loans (NPLs). On the other hand, in order to boost domestic demand and ease liquidity of enterprises, the Required Reserve Ratio (RRR) has been cut further.



## **Economy**

- The Chinese economy growth slips to 6.7% YoY in the second quarter of 2018, after a 6.8% YoY growth in the previous three quarters matching market consensus. It was the weakest growth since the third quarter in 2016 due to aggressive deleveraging efforts that curtailed investment in infrastructure amidst intensifying tariff battle. Fixed assets grew 6% from Jan 2018 to Jun 2018, following a 6.1% growth in the previous five months, the weakest reading of the record. The slowdown was due to contraction in public investment that went down to 3% from 4.1% in January to May. In June 2018, while industrial production growth eased due to a slower pace for all sectors, retails sales increased by 9% and beat market expectations.<sup>27,28</sup>
- Consumer prices inflation in China edged up to 1.9% YoY in June 2018 from a 1.8% in both April and May, matching market consensus. Cost of both food and non-food

products continued to increase. Politically sensitive food prices increased by 3.0% while non-food cost went up by 2.2% in June, the same as in May. Producer price index increased by 4.7% from the previous year in June 2018, softening from 4.1% in the previous month, above market expectation of 4.5%.<sup>29</sup>

- China's official unemployment rate decreased to 3.89% in the first quarter of 2018 from 3.90% in the last quarter of 2017, the lowest since 2002. The Ministry of Human Resources and Social Security mentioned that China created a "record-high" 13.51mn new jobs in 2017, a growth of 370,000 compared with the previous year. The unemployment rate averaged 4.11% from 2002 till 2018, reaching an all-time high of 4.3% in Q4 2003 and an all-time low in Q1 2018.<sup>30</sup>
- China's Caixin manufacturing purchasing managers index (PMI) fell fractionally from 51.1 in May to 51.0 in June, to signal a further marginal improvement in operating conditions. Consecutively, the Caixin China General Services PMI rose from 52.3 to 53.0 in June, to signal a solid rate of growth that was the steepest recorded since February. Generally, the PMIs indicate that Chinese business continued to expand at the end of the second quarter.<sup>31,32</sup>
- Investment in fixed assets, a crucial driver of the economy, went up by 6.0% YoY reaching CNY 29.73tn in the first six months of 2018, and the growth rate in the June was 0.1% lower than in the first five months. Real estate investment continued to deliver strong growth rate as it went up by 9.7% YoY in the first six months of 2018. The investment in residential buildings, which accounted for 70.2% of real estate investment, went up by 13.6%.<sup>33,34</sup>
- China's trade balance narrowed in June 2018 to USD 41.61bn, well above market consensus of USD 27.9bn as exporters were rushing shipments before US tariffs went into effect. The trade surplus with US, China's largest export market, increased to a record USD 28.97bn in June 2018. Exports growth eased at 11.3% YoY, while imports rose 14.1% from a year ago. For the first half of 2018 as a whole, trade surplus narrowed to USD 144.4bn from USD 184.7bn in the same period last year.<sup>35</sup>

#### **Monetary**

- China's central bank continued to maintain its benchmark interest rate at 4.35% since it was raised by 25bps in October 2015. Despite the Fed's rate hike in June 2018, PBOC maintained the rate of seven-day reverse repurchase agreements (repo) at 2.55%, the 14-day tenor at 2.70%, and the 28-day tenor at 2.85%.<sup>36,37</sup>
- China's primary money rates edged up at the end of Q2 2018 due to a central bank-led health check on financial institutions and rising cash demand at the end of quarter, while prospects of liquidity level stayed positive. The volume-weighted average rate of the benchmark seven-day repo at the quarter's end was about 29bps higher than the previous week's closing average rate of 2.726%. In the last week of the second quarter, the PBOC drained CNY 500bn on a net basis, after a net CNY 370bn was drained in the previous week as it saw relatively high banking system liquidity after absorbing maturing reverse repos.<sup>38</sup>

- The required reserve ratio (RRR) increased by 50bps at end-June 2018 to 16% for large institutions and 14% for smaller banks. In a series of reductions, the central bank has brought the reserve ratio down from its 2011 peak of 21.5%. Further reduction will commence on July 5, 2018, which cut the RRR of both large and small banks by 50bps. The RRR cut, which was announced by the central bank on June 24, releases about CNY 700bn in liquidity.<sup>39</sup>, <sup>40</sup>, <sup>41</sup>
- China's foreign exchange reserves increased by USD 1.51bn MoM to USD 3.112tn in June 2018, compared to a drop of USD 14.23bn in May. The small gain in reserves was due to an increase in the value of China's US Treasury holdings as fears about a global trade war drove investment flows into safe haven assets. Meanwhile, the gold reserves value fell from USD 77.32 at end-May 2018 to USD 74.07bn in June 2018. Foreign Exchange Reserves in China averaged USD 977bn from 1980 until 2018, reaching an all-time high of USD 3.99tn in June of 2014 and a record low of USD 2.26bn in December of 1980.<sup>42</sup>

# **Funding & Liquidity**

- 10-year government bond yield fell from 3.73% at end-March 2018 to 3.48% at the end
  of March 2018. 1-year government bill yield decreased from 3.30% to 3.20% over the
  same period.<sup>43</sup>
- The 3-month 5-day average SHIBOR had decreased from 4.46% on 30 March 2017 to 4.16% on 29 June 2018.<sup>44</sup>
- The value of new yuan loans provided by the Chinese banks extended to CNY 1.84tn in June 2018 as compared to CNY 1.15bn in May 2018, above market consensus of CNY 1.60tn. After recording an all-time high of CNY 2.99tn in January 2018, Banks Balance Sheet in China averaged CNY 661.47bn from 2004 to 2018.<sup>45</sup>

## **Policy**

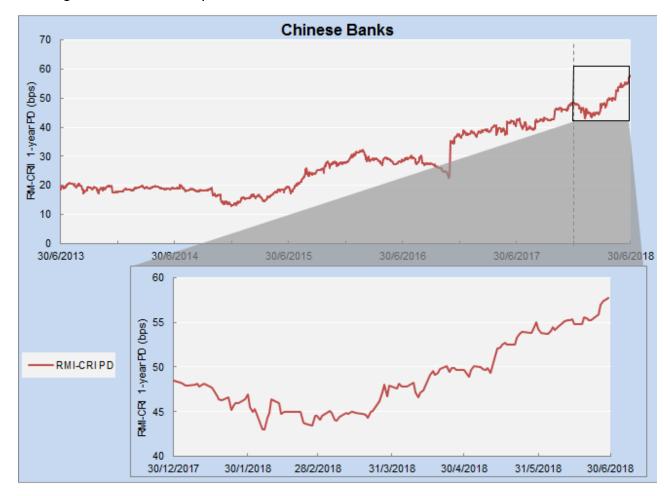
- China's economy growth eased to 6.7% in Q2 2018, the slowest pace since 2016, due to aggressive deleveraging campaign that hit its fixed-asset investment amid US trade war. Although spending on fixed-asset investment grew on a record low of 6% in the first half of the year, there is space to provide more fiscal support through tax cuts and higher infrastructure investment. Tighter monetary policy and lending curbs were also imposed to drag M2 money supply and overall credit growth down. Furthermore, the impact of new rules aimed at curbing risks from shadow banking has led to a sharp contraction in lending by non-bank institutions.<sup>46</sup>
- After a wave of defaults and contractions in bond financing last month, China's policy makers and local authorities are preventing tightening strains in the USD 11bn equivalent Chinese bond market from spiraling into a collapse. The moves have significantly promoted financial deleveraging which aimed at encouraging more productive allocation of capital and reducing dependency to government support. The challenge remains in the process of encouraging the market-oriented efforts to resolve corporate debt issues without reinforcing the old image of a state-dominated financial system. Despite increasing demands from the private sector for government support, the government still promote market-oriented resolutions. In the recent interventions, authorities have mostly stopped paying off corporate debt, yet served as coordinators to establish repayment plans.<sup>47</sup>

# **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.<sup>48</sup>

## Chinese Banks

The aggregate 1-year RMI PD remained stable over the second quarter of 2018. Credit conditions have been tighten with reclassification of loans overdue for 90 days or more into Non-Performing Loans (NPLs). As a result, non-performing loans of the small regional commercial lenders grew significantly in the second quarter of 2018 and led to numerous credit-rating downgrade. Reducing risk in the Chinese financial system is still of top priority for the government as it implements measures to limit financial risk.



# **Profitability**

Net profit in Chinese commercial banks surged amidst regulatory scrutiny. China's commercial banks made combined net profits of USD 522.2bn in the first quarter of 2018, up 5.86% YoY. The growth accelerated by 1.25% compared to the same quarter in 2017. Efforts to deleverage have slowed the growth of banks' balance sheets, but in other aspects, they have boosted profitability. The commercial lenders also saw modest growth in the non-performing loan ratio for the first quarter of 2018.<sup>49</sup>

# **Funding & Liquidity**

 China's central bank injected a net CNY 663bn into financial institutions via its 1-year medium-term lending facility (MLF) in June 2018 with rate at 3.3%. Other than MLF, CNY 61bn was lent through standing lending facility and CNY 60.5bn was injected through pledged supplementary lending to financial institutions to meet provisional liquidity demand.<sup>50</sup>

# Regulations

- In order to cushion US tariff that hits USD 34bn worth of Chinese exports in June 2018, China government cut the country's banks required reserve ratio (RRR) by half a percentage point in July 5, 2018, before the first round of tariffs commence in July 6. The RRR cut for large commercial banks will give an additional CNY 500bn, while the cut for smaller banks are expected to free up an additional CNY200bn. Big banks are required to direct the CNY500bn towards 'debt for equity' swaps, a recently introduced programme in which banks write off debt to heavily indebted firms in return for equity stakes. Meanwhile, smaller banks are supposed to use the CNY200bn to boost funding for small and medium-sized enterprises (SMEs).<sup>51</sup>
- China Banking Regulatory (CBRC) has been clamping down on various risks in the financial sector, including poor corporate governance, violation of lending policies, and cross-holding of financial products. They recently implemented new rules to reclassify all loans overdue for 90 days or more into Non-Performing Loans (NPLs), which was previously classified as "special mention loans" instead. The movement is expected to lead to a 14% rise in NPL across the sector in 2018, with rural banks are expected to see a 33% rise in bad loans. Currently, Chinese government requires banks to have capital more than 150% of their NPL, with the new regulations banks will need much higher level of capital to meet regulatory requirements.<sup>52</sup>

#### **Asset Quality**

• Chinese commercial banks reported much higher non-performing loans at the end of May 2018, as the effect of tighter regulations on bad loan classification is gradually kicking in Chinese banks reported non-performing loans (NPLs) of CNY 1.9tn, or a NPL ratio of 1.9% at the end of May. The stricter implementation of loan classification rules is forcing banks to put some special mention loans, and sometimes even normal loans, to the NPL category, which Chinese banks to reveal the true extend of their bad loans. A recent report by China Orient Asset Management predicts that China's bad debt will continue to rise gradually in the next three to five years. The main drivers will be stricter regulations and Beijing's priority to lower leverage, reduce excess capacity and clean up "zombie enterprises".<sup>53</sup>

<sup>&</sup>lt;sup>27</sup>July 16, 2018, China GDP Annual Growth Rate, Trading Economics, http://www.tradingeconomics.com

<sup>&</sup>lt;sup>28</sup>July 16, 2018, China GDP slips to 6.7% in second quarter, slowest since 2016, FT, http://www.ft.com

<sup>&</sup>lt;sup>29</sup>July 10, 2018, China Inflation Rate, Trading Economics, http://www.tradingeconomics.com

<sup>&</sup>lt;sup>30</sup>Aug 5, 2018, China Unemployment Rate, Trading Economics, http://www.tradingeconomics.com

<sup>&</sup>lt;sup>31</sup>July 2, 2018, Caixin China General Manufacturing PMI, Markit Economics https://www.markiteconomics.com

<sup>&</sup>lt;sup>32</sup>July 4, 2018, Caixin China General Services PMI, Markit Economics https://www.markiteconomics.com

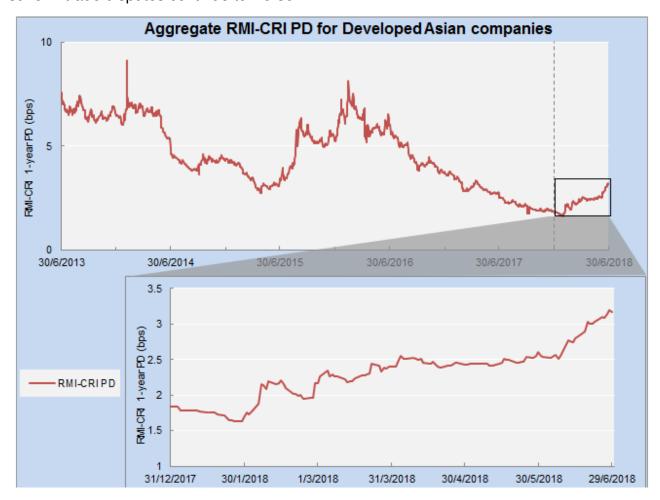
<sup>&</sup>lt;sup>33</sup>July 18, 2018, Investment in Fixed Assets for the Frist Six Months of 2018, National Bureau of Statistics of China http://www.stats.gov.cn

<sup>&</sup>lt;sup>34</sup>July 19, 2018, National Real Estate Development and Sales in the First Six Months of 2018, National Bureau of Statistics of China http://www.stats.gov.cn

- <sup>35</sup>July 13, 2018, China Balance of Trade, Trading Economics, http://www.tradingeconomics.com
- <sup>36</sup>July 10, 2018, China Interest Rate, Trading Economics, http://www.tradingeconomics.com
- <sup>37</sup>June 14, 2018, China's central bank unexpectedly holds fire on rates as economy wobbles, Reuters, http://www.reuters.com
- <sup>38</sup>June 29, 2018, China's money rates inch up on rising cash demand at quarter-end, market sentiment stable, Reuters, http://www.reuters.com
- <sup>39</sup>June 29, 2018, China's money rates inch up on rising cash demand at quarter-end, market sentiment stable, Reuters, http://www.reuters.com
- <sup>40</sup>July 11, 2018, China Cash Reserve Ratio Big Banks, Trading Economics, http://www.tradingeconomics.com
- <sup>41</sup>June 24, 2018, As trade war looms, China cuts some banks' reserve requirements to boost lending, Reuters, http://www.reuters.com
- <sup>42</sup>July 9, 2018, China Foreign Exchange Reserves, Trading Economics, http://www.tradingeconomics.com
- <sup>43</sup>June 30, 2018, Yield of Government Securities, China Foreign Exchange Trade System, http://www.chinamoney.com.cn
- <sup>44</sup>July 10, 2018, SHIBOR, Shanghai Interbank Offered Rate, http://www.shibor.org
- <sup>45</sup>July 12, 2018, China New Yuan Loans, Trading Economics, http://www.tradingeconomics.com
- <sup>46</sup>June 22, 2018, China Moves to Quell Systemic Bond Risks After Default Wave, Bloomberg, http://www.bloomberg.com
- <sup>47</sup>July 16, 2018, China GDP slips to 6.7% in second quarter, slowest since 2016, FT, http://www.ft.com
- <sup>48</sup>July 10, 2018, Rating: China Credit Rating, Country Economy, https://countryeconomy.com
- <sup>49</sup>May 13, 2018, China's commercial banks earnings rise in Q1, Xinhua Net, http://www.xinhuanet.com
- <sup>50</sup>July 2, 2018, China's central bank injects liquidity into market in June, Xinhua Net, http://www.xinhuanet.com
- <sup>51</sup>June 25, 2018, China cuts bank reserves by USD 100bn to cushion US tariffs, FT, http://www.ft.com
- <sup>52</sup>July 5, 2018, Small Chinese banks face regulatory capital wipeout, FT, http://www.ft.com
- <sup>53</sup>June 20, 2018, Tighter Regulation Pushes Up Bad Loan Ratios Of Chinese Commercial Banks, China Money Network, https://www.chinamoneynetwork.com

# **Asia-Pacific - Developed economies**

The RMI-CRI aggregate 1year PD for listed companies in the developed Asia Pacific increased during the second quarter of 2018, suggesting a poorer credit outlook. The ongoing trade war and monetary tightening could be some of the reasons that may slow down the region's growth. Despite the threats that may slow economic growth, most major countries have seen GDP YoY expansion in the latest quarter. Singapore's economy grew during Q2 with 3.8% GDP YoY growth. Singapore grew at a slower pace due to slowing services sector and a contracting construction sector. Likewise, Taiwan also reported a 3.29% GDP YoY growth, beating estimates. The strong growth was supported by better than expected export figures and strong private investment. South Korea's economy saw a quarterly growth of 2.9% YoY, a higher growth than first quarter. A boost in exports led the return to the economy's expansion. However, private consumption and government spending slowed. Developed Asia Pacific economies are expected to continue to do well for 2018 but may suffer if trade disputes continue to worsen.



# **Australian Companies**

The aggregate 1-year RMI PD for Australian companies remained stable during Q2 2018. Based on Q4 data, economic growth expanded with a significant rebound in exports, driven by gas, natural, and manufactured sector. Unemployment rate remained at a constant rate after a drop to a four-year low rate in December. Going forward, the credit outlook for Australian firms remain dependent on the rebalancing of the economy as the increasing performances of manufacturing, services, 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 1.0% from Q4 2017 to Q1 2018, higher than the market consensus of 0.9%. It was the highest growth since the second quarter of 2017.
   The economy increased by 3.1% YoY, following an upwardly revised 0.5% growth in Q4 2017.<sup>54</sup>
- The higher GDP growth in Q1 was driven largely by rebound in exports, which contributed 0.5 percentage points to Q1 2018 GDP growth. Exports of goods and services that drives the positive growth of GDP, accelerated sharply by 2.4% in Q1 2018 from a 1.5% fall in the previous quarter. Government spending gave a prominent contribution to the economic growth as well with 0.3pps contribution to Q1 2018 GDP growth, followed by household consumption, non-dwelling construction, and changes in inventories.<sup>55</sup>

- The Reserve Bank of Australia's (RBA) had left the cash rate unchanged at 1.5%, amid rapid above-trend economy improvement rate and low unemployment rates. The economy is growing strongly with 3.1% over 2018, and is forecasted to remain above 3% in 2018 and 2019. Business conditions are positive and non-mining business investment is continuing to increase. Higher levels of public infrastructure investment are also supporting the economy. However, household income has been growing slowly and debt levels are high. Inflation remains low with central forecast for CPI inflation to be a bit above 2% in 2018.<sup>56</sup>
- The unemployment rate stood at 5.4% in June 2018, same as in the prior month and in line with market consensus. The number of full-time jobs rose in June with 41,200 jobs added, while part-time employment advanced by 9,700. The number of unemployed fell by 1,100 making the unemployment rate remained at the lowest level since last November. Furthermore, the labor force participation rate increased to 65.7% in June from 65.65% in May, a tick below an all-time high of 65.8% in November 2010.<sup>57</sup>
- The Australian Performance of Manufacturing Index (PMI), as reported by The Australian Industry Group, ended the financial year on a high note, down just 0.1 point to 57.4 in June 2018 to record a 21st month of continuous expansion. Six of the seven sub-indexes expanded in June, with sales grew strongly while index of the new orders' down just 4.8 points. The equivalent index for services (PSI) lifted by 4.0 points to a record high in June 2018, extending its positive run since the previous 16 months. It indicates accelerated growths in new orders, sales, stocks, and employment. However, the Australian Performance of Construction Index (PCI) fell by 3.4 points to 50.6 in June, the lowest in 17 months. It signals stable or marginal growth in the national construction industry. Activity expanded the most in commercial and engineering construction while softened in house building. 58,59,60
- Key export prices rose 1.9% in Q2 2018, following a rise in last quarter of 4.9%. Gas, natural, and manufactured posted the highest increase in prices in this quarter. Through the year to Q2 2018, the export index price rose by 6.6%, driven by coke, coal, and briquettes. On the other hand, import prices rose 3.2% in Q2 2018, following a 2.0% rise in the previous quarter. The rise was driven by higher prices in petroleum related products. Trade surplus increased by 13% to AUD 1.53bn in March 2018, the largest trade surplus since May 2017. Both exports and imports expanded by 1% MoM. 61,62

## **Monetary Policy**

• The Reserve Bank of Australia (RBA) has maintained its benchmark interest rate to a record low of 1.5% since August 2016 to boost investment and hiring. Meanwhile, as household income has been growing slowly and debt levels are high, lending standards are tighten than they were a few years ago to contain the build-up of risk in household balance sheets. Amid a sustainable growth in the economy with a significant increase in full-time job numbers and returning inflation to target, monetary policy is largely seen to be on hold for the near future. Further progress in reducing unemployment and having inflation return to target is expected, although this progress is likely to be gradual.<sup>63</sup>

# **Funding & Liquidity**

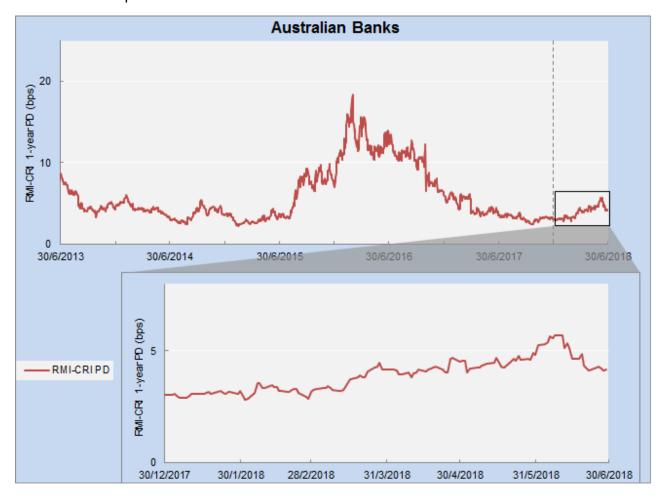
- Yields on 10-year Australian government bonds fluctuated throughout the quarter with 2.74% in April 2018, 2.79% in May 2018, and plunged to the lowest of 2.70% in June 2018. The previous quarter reported a decreasing rate from the highest 2.75% in January 2018 to 2.75% in March 2018.<sup>64</sup>
- The 3-year fixed lending rates to small businesses remained unchanged at 5.30% in June quarter 2018 after it increased 5bp from 5.25% in March 2018 to 5.30% in April 2018. The lending rates for owner-occupied housing loan remained unchanged at 5.20% since July 2017.<sup>65</sup>
- Average commercial lending during the quarter increased driven mainly by lending to the business sector as total loans to financial intermediaries declines in Q2 2018.
   Meanwhile, total lending to individuals continues to increase over the second quarter of 2018 and total lending to government remains at a similar rate after an increase of USD1.3bn in April 2018.<sup>66</sup>

# **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, with the exception of S&P, which had a negative outlook.<sup>67</sup>

# **Australian Banks**

The aggregate 1-year RMI PD remained stable over the quarter. Earnings may come under pressure from the increasing cost of regulations as regulators attempt to increase banks' capital ratio. The profitability of banks has improved and housing credit continued to accelerate. However, household debt continued to rise, increasing to over 180% of household's disposable income. The future headwind will be the eventual rise in interest rate, concerning the households' ability to meet their hiking obligation. Asset performances continue to improve as loan impairment expenses has dropped to a low level. This will assist banks to record profit in 2018.



# **Profitability**

Australia's major banks, including ANZ, NAB, Westpac and Commonwealth Bank, reported a cash profit after tax of AUD 15.2bn for the 2018 half year, down 2% compare to the previous corresponding period. The weakening financial performance is driven by lower non-interest income and higher restructuring and regulatory costs. Aggregated net interest income increased by 4.8% while aggregated non-interest income decreased by 5.8% due to one-off asset disposals, the removal of ATM fees and regulatory changes.<sup>68</sup>

# **Funding & Liquidity**

 Mortgage and deposit re-pricing has offset lower earnings in capital market's income and increased aggregate average net interest margin by 3bps to 206bps as of the first half of 2018 financial year. The Liquidity Coverage Ratio of Australian banks is at an average of 131.5%, compared with the 100% minimum. Leverage ratio for the majors is at an average of 5.5%, higher than the currently agreed minimum requirement of 3%.<sup>69,70</sup>

## **Asset Quality**

• The Australian Prudential Regulation Authority (APRA) has been implementing the prudential cap policy on interest-only lending. The major banks' aggregate charge for bad and doubtful debts decreased by AUD 431mn to AUD 1.8bn for the half year of 2018, while gross impaired assets across the majors decreased from AUD 8.84bn to AUD 8.54bn. There are still weaknesses related to the household debt as it continues to rise. Despite APRA capping the new interest-only lending at 30% of the total new residential mortgages and limiting the generation of such loans at a loan-to-value ratio above 80%, the majors recorded an increase in average interest-earning assets across their portfolios of 1% to 777,195 whilst also decreasing gross impaired assets, demonstrating balance sheet resilience.<sup>71</sup>

<sup>&</sup>lt;sup>54</sup>June 6 2018 5206.0 - Australian National Accounts: National Income, Expenditure and Product, Jun 2017, Australian Bureau of Statistics, abs.gov.au

<sup>&</sup>lt;sup>55</sup>June 6 2018 Australia GDP Growth Rate, Trading Economics tradingeconomics.com

<sup>&</sup>lt;sup>56</sup>July 3 2018 Statement by Philip Lowe, Governor:, Reserve Bank of Australia, rba.gov.au

<sup>&</sup>lt;sup>57</sup>July 19 2018 Australia Unemployment Rate, Trading Economics ft.com

<sup>&</sup>lt;sup>58</sup>July 2 2018 Australian PMI: Manufacturers close financial year on a high, Australian Industry Group, aigroup.com.au

<sup>&</sup>lt;sup>59</sup>July 4 2018 Australian PSI: Infrastructure investment lifts services in June, Australian Industry Group, aigroup.com.au

<sup>&</sup>lt;sup>60</sup>July 6 2018 Australian PCI: Construction stable at end of financial year, Australian Industry Group, aigroup.com.au

<sup>&</sup>lt;sup>61</sup>July 26 2018 6457.0 - International Trade Price Indexes, Australia, Dec 2017, Australian Bureau of Statistics, abs.gov.au

<sup>&</sup>lt;sup>62</sup>Aug 2 2018 Australia Balance of Trade, Trading Economics tradingeconomics.com

<sup>&</sup>lt;sup>63</sup>July 3, 2018, Statement by Philip Lowe, Governor:, Reserve Bank of Australia, rba.gov.au

<sup>&</sup>lt;sup>64</sup>July 10 2018 Monetary Policy Decision, Reserve Bank of Australia, rba.gov.au

<sup>&</sup>lt;sup>65</sup>July 10 2018 Indicator Lending Rates, Reserve Bank of Australia, rba.gov.au

<sup>&</sup>lt;sup>66</sup>Aug 3 2018 Bank Lending Classified by Sector, Reserve Bank of Australia, rba.gov.au

<sup>&</sup>lt;sup>67</sup>July 10 2018 Australian Government Credit Ratings, Office of Financial Management, Government of Australia, aofm.gov.au

<sup>&</sup>lt;sup>68</sup>May 7 2018 Major Australian Banks: Half Year 2018 Results Analysis, KPMG, kpmg.com.au

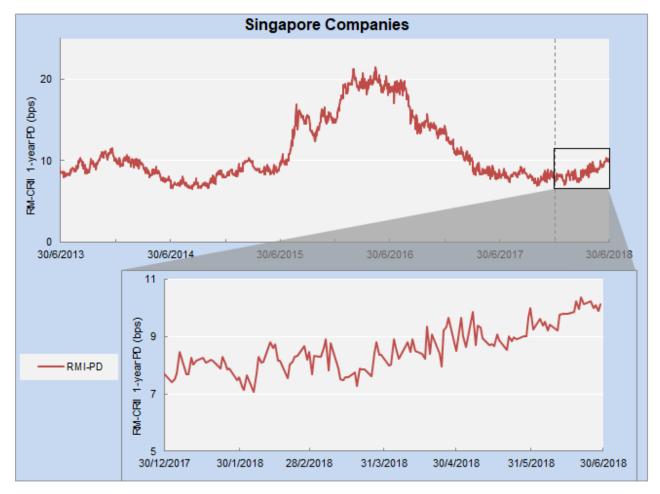
<sup>&</sup>lt;sup>69</sup>May 7 2018 Major Australian Banks: Half Year 2018 Results Analysis, KPMG, kpmg.com.au

<sup>&</sup>lt;sup>70</sup>April 30 2018 Major banks' USD 1.3tn mortgage books stress tested by Fitch, Australian Financial Review, afr.com

<sup>&</sup>lt;sup>71</sup>May 7 2018 Major Australian Banks: Half Year 2018 Results Analysis, KPMG, kpmg.com.au

# **Singapore Companies**

The RMI-CRI aggregate PD for Singapore firms continued its upward path during the second quarter of 2018. The economy grew by 4.3% on a YoY basis. The increase was mainly fueled by the expansion in the manufacturing sector. The positive economic momentum likely continued in 2018. Data form March shows that the unemployment rate declined due largely to the continued contraction in Work Permit Holders in Construction and Marine Shipyard. Private consumption could also be benefiting from a wealth effect associated with recovering real estate prices. Furthermore, the export slightly moderated and manufacturing PMI recorded a multi-year high, pushed up by faster expansions in factory output and new orders.



# **Economy**

- The economy grew by 3.9% on an annual basis in Q2 2018, slower than the 4.5% YoY growth rate in Q1 2018. The Ministry of Trade and Industry expects GDP growth to reach between 2.5% and 3.5% this year, meaning that a slowdown is likely to happen in the second half of the year with a drop in demand in several of Singapore's key export markets such as the US, Eurozone and China.<sup>72</sup>
- Singapore's Consumer Price Index for all items increased to an annual rate of 0.6% in June from 0.2% in March. A measure of core inflation, which excludes accommodation and private road transport costs also climbed to 1.7% in Q2 from 1.5% in Q1, fueled by higher domestic demand for food commodities and faster wage growth.<sup>73</sup>
- The overall unemployment rate increased in Q2 to 2.1% from 2.0% in Q1. Overall, the unemployment rate remained between 1.8% and 2.2%, a relatively low level since 2009. The number of lay-offs increased to 2500 in Q2 from 2320 in Q1 but stayed lower than the 3640 lay-offs in the second quarter last year.<sup>74</sup>

- Survey results released by the Singapore Institute of Purchasing and Materials Management recorded a decline of 0.5 point from the previous quarter from 53.0 to 52.5.
   The Singapore manufacturing PMI recorded its 22th month of consecutive expansion although at a slower rate. This latest PMI reading was mainly attributed to a slower growth in factory output, slower growth in new orders and new exports, as well as slightly lower inventory level.<sup>75</sup>
- Retail prices grew by 1.3% during the second quarter due to higher motor vehicle sales. Retail prices increased 2% compared to price levels a year ago. Sales of food & beverage services increased 2.9% in June this year compared to June last year, together with sales of medical goods and recreational products which grew by 5.8% and 5.7%, respectively.<sup>76</sup>
- Singapore's NODX expanded by 4.8% in the second quarter as exports reached SGD 16.9bn, the highest level in two years in May. Exports to China and South Korea dropped by 15.8% YoY and 31.4% YoY, respectively but exports to US and Indonesia gained 30.9% YoY and 19.6% YoY, respectively. Non-oil re-exports grew by 10.4% in Q2 to SGD 23.2bn due to a stronger demand for non-electronic products overseas.<sup>77</sup>

## **Monetary**

• In April 2018, Singapore's central bank tightened monetary policy for the first time in six years as it increased the slope of the Singdollar nominal effective exchange rate to allow for "modest and gradual" appreciation. According to the latest policy statement, Singapore's economy is likely to remain on its steady expansion path in 2018. Upward pressures on MAS Core Inflation are expected to persist over the course of 2018 and beyond, underpinned by an improving labor market. MAS has therefore decided to increase slightly the slope of the Singapore dollar nominal effective exchange rate policy band, from zero percent previously. The width of the policy band and the level at which it is centered will be unchanged. This policy stance is consistent with a modest and gradual appreciation path of the Singapore dollar nominal effective exchange rate policy band that will ensure medium-term price stability. The measured adjustment to the policy stance takes into account the uncertainty in macroeconomic outcomes presented by ongoing trade tensions.

# **Funding & Liquidity**

- Yields of 10-year Singapore government bonds increased to 2.53% on Jun 30 2018 from 2.29% on Mar 29 2018.
- Loans and advances of domestic banking units to non-bank customers rose from SGD 661bn in Q1 2018 to SGD 673bn in Q2 2018. Total loans to businesses rose from SGD 397.8bn in Mar 2018 to SGD 408.0bn in Jun 2018 while loans to consumers rose marginally from SGD 263.8bn in Q1 to SGD 265.2bn in Q2.<sup>79</sup>
- The amount of outstanding sovereign bonds remained nearly at the same level from SGD 111.1bn in Q1 to SGD 113.1bn in Q2.80
- The prime lending rate remained constant at 5.33% in Q2 2018.81

# **Sovereign Credit Ratings**

 All three major rating agencies kept their highest investment grade ratings for Singapore sovereign bonds over Q2 2018.

# **Singapore Banks**

The RMI-CRI 1-year aggregate PD for Singapore banks increased slightly during Q2 despite registering higher profits in the second quarter. Asset quality at UOB, OCBC and DBS remained healthy with no material increase in bad loans. Earnings of Singapore banks continue to be driven by higher interest income and fees from wealth management and loan growth. Funding & liquidity condition slightly increased. As for capital levels, Singapore banks remain well capitalized meeting Basel recommendations for capital requirements. The credit outlook for Singapore banks remains stable.



# **Profitability**

- Aggregate profits for Singapore banks remained nearly unchanged in the second quarter, at SGD 3.62bn in Q2 from SGD 3.6bn in Q1. Total quarterly net profits were higher by 20% from the same period last year. The strong performance was mainly attributed to strong growth in net interest income and net fee income. Banks said that loan growth was healthy as consumer and corporate loans increased during the quarter, undermined slightly by weaker trading income.<sup>82,83,84</sup>
- The amount of loans to non-financial institutions rose from SGD 294bn in Q1 2018 to SGD 301bn in Q2 2018, according to data from the Monetary Authority of Singapore. Total business loans increased by 2.5% to SGD 407bn at the end of Q2 2018 from 397bn in the previous quarter.<sup>85</sup>

# **Funding & Liquidity**

- Total deposits in Singapore banks remained unchanged in Q2 2018 at SGD 610tn, remaining at the same level throughout the year. Local currency deposits dropped by SGD 3.53bn in Q2 after rising to SGD 605bn in Q1. Foreign currency deposits however increased by about 7.3% during Q2 2018 possibly due to fluctuations in the markets.<sup>86</sup>
- Singapore's fixed deposit rates remained the same during Q2 2018 for 3-month and 6-month deposits, staying at 0.15% and 0.22%, respectively. The 12-month deposit rate increased to 0.37% in Q2 from 0.34% in Q1.87

# **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%, 14.5% and 13.2% respectively.

# **Asset Quality**

- Loan quality at local banks largely remained unchanged during Q2. Loans placed under the 'special mention' category declined to 1.92% of total exposure at the end of Q2 2018, from 1.93% in the previous quarter. Loans classified as doubtful increased to 0.28% of total exposure from 0.27%. Loans marked as a loss also increased to 0.23% in Q2 2018 from 0.22%.<sup>88</sup>
- NPL ratios at DBS, UOB and OCBC saw no movements in Q2 2018 from Q1. The NPL ratio at DBS stayed at 1.6% from the previous quarter. The NPL ratio at UOB also remained at 1.7% as at June 2018, while the NPL ratio for OCBC kept at 1.4%.<sup>89,90,91</sup>

<sup>&</sup>lt;sup>72</sup>Aug 13, 2018 Singapore maintains full-year GDP forecats as economy expands 3.9% in Q2, Channel News Asia, https://www.channelnewsasia.com

<sup>&</sup>lt;sup>73</sup>Jul 23, 2018 Singapore inflation rises to 0.6% in June, in line with expectations, Business Times, http-s://www.businesstimes.com.sg

<sup>&</sup>lt;sup>74</sup>Jul 27, 2018 Unemployment, retrenchments up slightly in Q2 2018: Manpower Ministry, The Straits Times, https://www.straitstimes.com

<sup>&</sup>lt;sup>75</sup>Jun 2018, June PMI dipped 0.2 point to expand at 52.5, Singapore Institute Of Purchasing & Materials, http://www.sipmm.edu.sg

<sup>&</sup>lt;sup>76</sup>Jun 2018, Retail Sales and Sales of Food & Beverage Services, Statistics Singapore, https://www.singstat.gov.sg/

<sup>&</sup>lt;sup>77</sup>Jul 17, 2018, SINGAPORE'S EXTERNAL TRADE June 2018, IE Singapore, http://www.iesingapore.gov.sg/

<sup>&</sup>lt;sup>78</sup>Apr 13, 2018, MAS Monetary Policy Statement, MAS, https://secure.mas.gov.sg/

<sup>&</sup>lt;sup>79</sup>Jun, 2018 Banks: Loans and Advances of DBUs to Non-Bank Customers by Industry, MAS, https://secure.mas.gov.sg/

<sup>&</sup>lt;sup>80</sup>Jun, 2018 Issuance, Redemption and Outstanding Amount, MAS, https://secure.sgs.gov.sg/

<sup>81</sup> Jun, 2018 Interest Rates of Banks and Finance Companies, MAS, https://secure.mas.gov.sg/msb/

<sup>82</sup> Aug 3, 2018 UOB Group reports second quarter 2018 Earnings of SGD 2.05bn, UOB, www.uob.com.sg

<sup>&</sup>lt;sup>83</sup>Aug 2, 2018 DBS first-half net profit up 23% to record SGD 2.89 billion, DBS www.dbs.com.sg

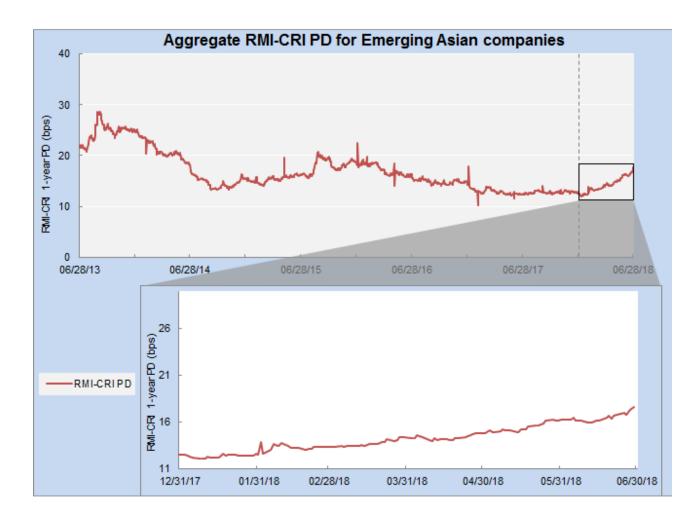
<sup>&</sup>lt;sup>84</sup>Aug 6, 2018 OCBC Group Second Quarter 2018 Net Profit Up 16% Year-on-Year to a Record SGD 1.21bn , OCBC Group, http://www.ocbc.com

<sup>85</sup> Jun, 2018 Banks: Loans and Advances of DBUs to Non-Bank Customers by Industry, MAS, https://secure.mas.gov.sg/

- <sup>86</sup>Jun, 2018 Deposits (excluding SDG NCDs) of DBUs by types of non-bank customers, MAS, https://secure.mas.gov.sg/
- <sup>87</sup>Jun, 2018 Interest Rates of Banks and Finance Companies, MAS, https://secure.mas.gov.sg/msb/
- <sup>88</sup>Jun, 2018 Banks: Classified Exposures, MAS, https://secure.mas.gov.sg
- <sup>89</sup> Aug 3, 2018 UOB Group reports second quarter 2018 Earnings of SGD 2.05bn, UOB, www.uob.com.sg
- <sup>90</sup>Aug 2, 2018 DBS first-half net profit up 23% to record SGD 2.89 billion, DBS www.dbs.com.sg
- <sup>91</sup>Aug 6, 2018 OCBC Group Second Quarter 2018 Net Profit Up 16% Year-on-Year to a Record SGD 1.21bn , 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, continued its upward climb during Q2 2018 in part due to US dollar strength headwinds. Escalation in global trade tensions also contributed to lower market values and weaker credit profiles as the US-China trade talks fail to deliver a sustainable agreement. Credit profiles of firms in Thailand were firmly lower, negatively impacted by uncertainty in the global trade industry. Direct exporters to China were particularly affected by the slower momentum in China which were exacerbated by deterioration in the outlook for global trade.



# **Indonesian Companies**

NUS RMI-CRI

The RMI-CRI aggregate 1-year PD for Indonesian companies increased to about 24.63bps at the end of June 2018 from 20.24bps at the end of March 2018. Indonesia's economy experienced a growth of 5.06% YoY in Q1 2018, missing market expectations of 5.18%. Indonesia's inflation decreased for the second quarter of 2018, with a CPI of 3.12% from 3.40% in Q4. The trade balance was restored to USD1.7 billion surplus in June 2018, despite having experienced deficits in both April and May 2018. This was mainly due to a surplus in non-oil and gas trade, along with the decreasing deficit in oil and gas trade balance. For the period from January-June 2018, Indonesia's trade balance recorded a USD1.0 billion deficit cumulatively.



# **Economy**

• The Indonesian economy expanded by 5.06% YoY in Q1 2018, a slower pace as compared to the previous period and below market expectations of 5.18%. Private consumption and fixed investment were the main drivers behind the growth of the economy in this quarter (at 4.95% and 7.95% respectively). In addition, exports rose at a slower pace (at 6.17% compared to 8.5% in Q4 2017).<sup>92</sup>

- The Consumer Price Index (CPI) of Indonesia reached 3.12% in June. Respectively, the inflation of volatile food reached 4.60% (YoY), core inflation at 2.72% (YoY), inflation of administered prices at 2.88% (YoY). Going forward, inflation is projected to stay at around 3.5% throughout 2018. Therefore, it is important that the central and regional governments as well as Bank Indonesia strengthen their coordination to keep inflation at check especially on the rising inflation of volatile food.<sup>93</sup>
- Wages of Indonesian workers likely increased in Q1 2018. Nominal wage of farmers per day increased by 0.95% during Q1 2018 from IDR 51,110 in January 2018 to IDR 51,598 in March 2018.<sup>94</sup>
- Indonesia's trade balance recorded a surplus of USD 1.7bn in June 2018, as compared to a deficit of USD1.5 billion in the previous month. This was primarily supported by non-oil and gas trade surplus and the decreasing deficit in oil and gas trade balance. The non-oil and gas trade surplus reached USD 2.1bn in June 2018 while oil and gas trade balance deficit deteriorated to USD 0.4bn. This improvement was attributable to a USD 0.1bn rise in oil and gas exports as well as a USD 0.7bn decrease in the oil and gas imports. Bank Indonesia will continue to keep a lookout for domestic and global economic changes that might affect the trade balance, while striving to maintain a stable and long-lasting domestic economic growth.<sup>95</sup>
- According to Nikkei Indonesia Manufacturing Purchasing Managers' Index (PMI), Indonesia's PMI fell from a 51.7 in May to 50.3 in June. This reflected a softer pace of improvement in the manufacturing sector in June.<sup>96</sup>

# **Monetary**

• On July 18th and 19th 2018, the Bank Indonesia (BI) Board of Governors agreed to hold the BI 7-day repo rate, deposit facility rate, and lending facility rate at 5.25%, 4.50% and 6.00% respectively. The decision is consistent with Bank Indonesia's efforts to maintain domestic financial market attractiveness by managing the uncertainty of the global financial markets, especially to maintain stability in Rupiah exchange rate. Looking forward, Bank Indonesia will continue to coordinate with the Government to reinforce the policy mix in order to maintain macroeconomic stability, financial system stability and strengthen fundamentals of Indonesia's economy so as to keep domestic financial market attractiveness.<sup>97</sup>

# **Funding & Liquidity**

- The yield on Indonesia's 5-year bonds significantly increased from 5.93% at end of March 2018 to 7.60% at the end of June 2018. Similarly, Indonesia's 10-year government bond yield increased from 6.67% at the end of Q1 2018 to 7.80% at the end of Q2 2018. This is because investors have started selling off risky emerging market assets in the environment of a rising US yield and US dollar.<sup>98,99</sup>
- Indonesia's official reserve assets position stood at USD 119.8bn as of end-June 2018, lower than the end of May 2018 level registered at USD 122.9bn. The decrease was primarily attributable to government external debt repayment and its currency stabilization amidst global financial market uncertainty. Bank Indonesia considered the official reserve assets remain adequate in line with the sustainability of Indonesian economic growth.<sup>100</sup>

• Long-term external debt grew at 6.8% (YoY) in May 2018. Long-term external debt consisted of public sector external debt amounting to USD 182.5bn (50.9% of total long-term external debt) and private sector external debt amounting to USD 176.1bn (49.1% of total long-term external debt). The cost of government's external debt is getting lower along with the increasing investor confidence in Indonesia which is supported by better economic fundamentals. The development of external debt in May 2018 remains manageable. The ratio of Indonesia's external debt to GDP is stable at 34.8%.

#### **Politics**

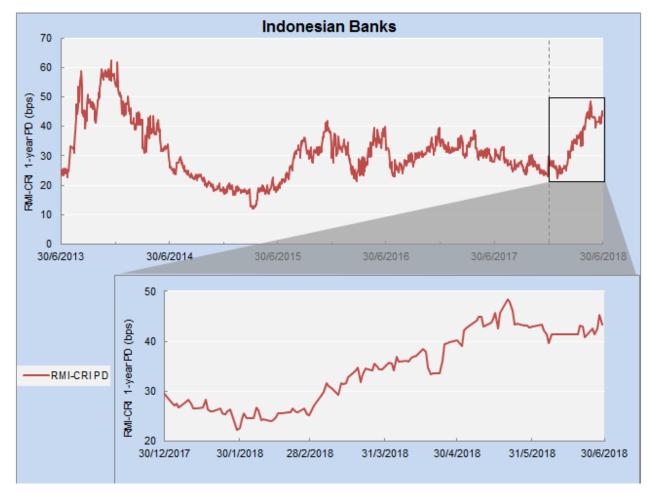
• Quick informal counts in Indonesia's regional elections on June 27, 2018 revealed that candidates siding President Joko Widodo (Jokowi) garnered majority of the votes in three Java provinces, rendering Jokowi having a better chance at securing a second term in office. As regional leaders are often in the best position to mobilise voters, the local election results will impact presidential candidates. However, opposition-supporting candidates performed better than expected in the elections. Furthermore, some hardline Islamic leaders have shown their disapproval of the current president who has pledged to maintain Indonesia's pluralism and moderate Islam in the country. This may pose a tougher competition for Jokowi next year. As regional leaders are often in the best position to mobilise voters, the local election results will impact presidential candidates.<sup>102</sup>

# **Sovereign Credit Ratings**

 Fitch and S&P kept their ratings on the local currency long term bonds of Indonesia at BBB with a stable outlook and BBB- ratings with a stable outlook respectively in Q2. Moody's, however, upgraded its outlook on Indonesia's sovereign bond at BBB with a stable outlook. This reflected the Indonesian government's consistent effort to ramp up productive spending and attract foreign investments.<sup>103</sup>

# Indonesian Banks

The RMI-CRI aggregate 1-year PD for Indonesian banks increased to about 7.23bps at the end of June 2018 from 6.26bps at the end of March 2018. Loans extended by Indonesian banks grew 9.2% in June from a year earlier, versus 8.6% in May. Meanwhile, non-performing loans (NPL) stood at 3%, a decrease from 3.2% in the previous month.<sup>104</sup>



### **Profitability**

 The three largest majority state-owned Indonesian banks reported better earnings on a YoY basis in Q1 2018. Bank Mandiri reported a jump in net income with an increase of 17.3% in Q1 2018 while Bank Rakyat Indonesia reported an increase in net income of 11.4% and Bank Negara Indonesia reported a YoY increase in net income of 19%.<sup>105,106,107</sup>

# **Funding & Liquidity**

- The liquidity ratio (liquid asset/bank deposit) of Indonesian banks deteriorated from 21.2% in March 2018 to 20.3% in May 2018. 108
- The Jakarta 3-month interbank rate increased substantially from 5.36% at the beginning of Q2 2018 to 7.10% by the end of Q2 2018. Similarly, the 1-month interbank rate increased from 5.03% at the beginning of Q2 2018 to 6.96% by the end of Q2 2018.

#### Regulation

 The Financial Services Authority has told the country's systemically important banks to create a tier-1 capital surcharge of between 1% and 3.5% of risk weighted assets by Jan 2019. Indonesia's systemically important banks are categorised into five categories which will decide the size of the new capital surcharge. The regulator will revise the classification in March and September every year based on the lenders' performance data.<sup>110</sup>

#### **Asset Quality**

• According to Bank Indonesia, the financial system remained stable. Capital adequacy ratio and liquidity ratio of Indonesian banks, as of May 2018, stood at 22.1% and 20.3% respectively, while non-performing loans (NPL) stood at 2.79% (gross) or 1.28% (net). Coupled with the recent domestic economic improvement in terms of banking industry and corporate consolidation, the potential growth of credit is likely to continue in line with Bank Indonesia's macroprudential policy easing. Furthermore, nonbank economic financing through the financial markets such as initial public offerings (IPO), is expected to increase in line with financial market deepening efforts.<sup>111</sup>

<sup>&</sup>lt;sup>92</sup>May 7, 2018, Indonesia GDP Annual Growth Rate, Trading Economics, http://www.tradingeconomics.com

<sup>93</sup> Jul 2, 2018, Inflation Controlled during Eid-ul-Fitr, Bank Indonesia, http://www.bi.go.id

<sup>&</sup>lt;sup>94</sup>Apr 24, 2018, Real and Nominal Wage for Farmworker in Indonesia (IDR), Indonesian Statistics Bureau (BPS), http://www.bps.go.id/index.php

<sup>&</sup>lt;sup>95</sup>Jul 16, 2018, Trade Surplus Restored, Bank Indonesia, http://www.bi.go.id

<sup>&</sup>lt;sup>96</sup>Jul 2, 2018, Manufacturing sector growth weakens in June, Markit Economics, http://www.markiteconomics.com

<sup>&</sup>lt;sup>97</sup>Jul 19, 2018, BI 7-day Reverse Repo Rate Held at 5.25%: Maintaining Stability Amid High Global Uncertainty, Bank Indonesia, http://www.bi.go.id

<sup>98</sup> Jul 2, 2018, Indonesia 5-Year Bond Yield, Investing, http://www.investing.com

<sup>&</sup>lt;sup>99</sup>Jul 2, 2018, Indonesia 10-Year Bond Yield, Investing, http://www.investing.com

<sup>100</sup> Jul 6, 2018, Official Reserve Assets Are High Enough in June 2018, Bank Indonesia, http://www.bi.go.id

<sup>101</sup> Jul 16, 2018, External Debt Statistics of Indonesia - July 2018, Bank Indonesia, http://www.bi.go.id

Jun 27, 2018, Unofficial counts show regional Indonesia polls favouring President Widodo, Channel News Asia http://www.channelnewsasia.com

<sup>103</sup> Jul 2, 2018 Indonesian Sovereign Rating: Market Data and Info, Bank Indonesia, http://www.bi.go.id

<sup>&</sup>lt;sup>104</sup>May 18, 2018, Indonesia's March loan growth accelerates to 9.2 pct y/y, Reuters, http://www.reuters.com

<sup>&</sup>lt;sup>105</sup>Aug 1, 2018, Bank Mandiri (Persero), The Wall Street Journal, http://quotes.wsj.com

<sup>106</sup> Bank Rakyat Indonesia, The Wall Street Journal, http://quotes.wsj.com

<sup>107</sup> Aug 1, 2018, Bank Negara Indonesia, The Wall Street Journal, http://guotes.wsj.com

<sup>&</sup>lt;sup>108</sup>Jul 19, 2018, BI 7-day Reverse Repo Rate Held at 5.25%: Maintaining Stability Amid High Global Uncertainty, Bank Indonesia, http://www.bi.go.id

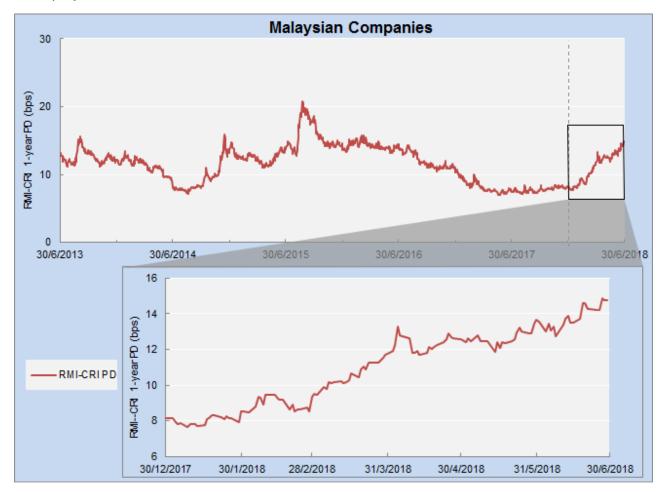
<sup>109</sup> Jul 2, 2018 Jakarta Interbank Offered Rate (JIBOR), Bank Indonesia, http://www.bi.go.id

<sup>&</sup>lt;sup>110</sup>Mar 28, 2018, Indonesia imposes extra capital requirements on top banks, The Business Times, http://www.businesstimes.com.sg

<sup>&</sup>lt;sup>111</sup>Jul 19, 2018, BI 7-day Reverse Repo Rate Held at 5.25%: Maintaining Stability Amid High Global Uncertainty, Bank Indonesia, http://www.bi.go.id

# **Malaysian Companies**

The RMI-CRI aggregate 1-year PD for Malaysian companies slightly increased to around 14bps over Q2 2018. Malaysia's economy growth with a slower pace compared to Q1 2018. Exports continue to increase mainly contributed by re-export activity which grew by 53.5%. Unemployment rate increased to 3.4% YoY. <sup>112</sup>



## **Economy**

GDP of Malaysia growth slowed to 4.5% YoY in Q2 2018 from 5.4% in Q1 2018. The GDP growth is mainly driven by stronger domestic demand supported by higher private sector activity. Services and manufacturing sectors remained the key drivers. Private consumption increased by 8.0%. Headline inflation declined to 0.8% and core inflation remained stable at 1.5%.

- Malaysia's CPI rose by 0.8% on a YoY basis in June 2018. Among the major groups which recorded increases were the indices for Transport (+ 5.5 per cent), and Housing, Water, Electricity, Gas & Other Fuels (+1.5 per cent), Restaurants and Hotels (+1.3 per cent), Education (+ 0.9 per cent), Food & Non-Alcoholic Beverages (+0.8 per cent), Furnishings, Health (+0.3 per cent).
- Malaysia's unemployment rate increased to 3.4% and the labour force participation rate in Malaysia is 68.5% in June 2018.
- In June 2017, Malaysia exports recorded an increase of 7.6% YoY to MYR 78.7bn. On the contary, Imports increased 14.9% YoY to MYR 72.6bn. On a YoY basis, exports rose due to higher exports to Hong Kong (+MYR 2.4bn), China (+MYR 1.7bn), Taiwan (+MYR 646.4mn), Viet Nam (+MYR 638.4mn) and Republic of Korea (+MYR 570.9mn).On a YoY basis, higher imports were mainly from China (+MYR 2.4bn), Singapore(+MYR 1.6bn), Taiwan (+MYR 1.3bn) and Republic of Korea (+MYR 921.0mn).

#### Monetary

- On July 11, Bank Negara Malaysia announced that it decided to increased the Overnight Policy Rate (OPR) at 3.25%, citing the global economy continues to expand albeit with some divergence across economies while global trade sustained its growth momentum. Malaysian economy continued to expand in the first half of 2018, supported by private sector activity with additional impetus from net exports. The positive growth performance is expected to be sustained, driven by both domestic and external demand.
- In March 2018, broad money (or M3), which measures the money supply, increased by 5.7% YoY to MYR 1.78tn. 118
- The ringgit depreciated by 0.5% against the USD in June. <sup>119</sup>

## **Funding & Liquidity**

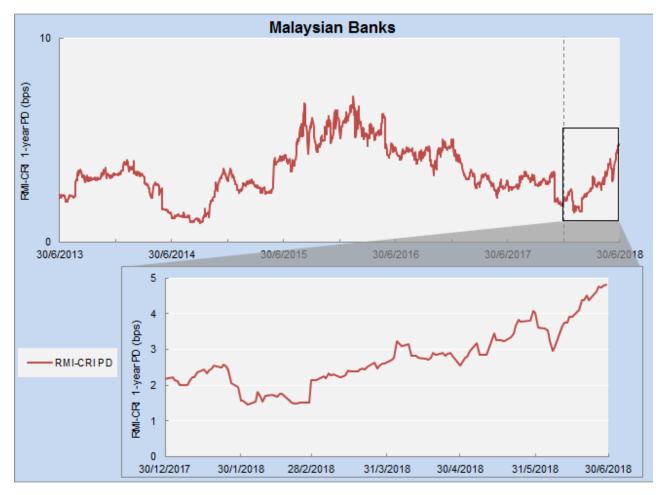
- The market indicative yield on the 10-year Malaysia government securities increased to 4.2% in June 2018, compare to 3.9% in March 2018. The same yield measure on 5-year Malaysia government securities increased to 3.8% from 3.54% over the same period. 120
- Bank loans approved to finance, insurance and business activities increased to MYR 3.63bn in June 2018 from MYR 3.55bn one year ago. Meanwhile, loans approved to the manufacturing segment over the increased to MYR 3.03bn in June 2018 from 99.5 last year and loans approved to the wholesale, retail trade, restaurants and hotels segment increased to MYR 2.46bn, while loans approved to real estate decreased from MYR 3.31bn a year ago to MYR 2.05bn in June. 121

# **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.

# **Malaysian Banks**

The RMI-CRI aggregate 1-year PD for Malaysian banks slightly increased to around 4bps in Q2 2018, as the banking system remained well capitalized. Stable total bank deposits continue to ensure liquidity in Malaysian banks. Though asset quality worsened slightly, the financials of Malaysian banks remained in the safety zone.



## Lending

- The amount of bank loan applications has decreased to MYR 73.16bn in June from MYR 76.65bn in March. Loan application for finance, insurance and business activities had increased to MYR 3.74bn in June 2018 from MYR 5.72bn in March. 122
- The base lending rate of Malaysian commercial banks remained stable at 6.90% in June. The weighted base rate also remained stable at 3.89% in June 2018.

## **Funding & Liquidity**

- Total bank deposits increased to MYR 1.798tn in June 2018 from MYR 1.793tn in March. The repurchase agreement decreased to MYR 15.2bn in June this year from MYR 20.7bn in March. 124
- Savings deposit in banking system slightly increased to MYR 155.36bn in June 2018 from MYR 155.30bn in March. <sup>125</sup>

#### **Capital Levels & Regulations**

 The Common Equity Tier 1 Capital ratio for Malaysian banks decreased to 12.7% in June 2018 from 13.2% in March. Similarly, the Tier 1 Capital Ratio decreased to 13.5% from 14.0% in the same period. NotesJune 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

## **Asset Quality**

 The value of impaired loans at Malaysian banks had increased to MYR 25.91bn in June 2018 from MYR 25.28bn in March 2018. The ratio of net impaired loans to net total loans increased to 1.04% from 0.99% in the same period.<sup>126</sup>

<sup>&</sup>lt;sup>112</sup>May 16, 2018, Economic and Financial Developments in the Malaysian Economy in the Second Quarter of 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>113</sup>May 16, 2018, Economic and Financial Developments in the Malaysian Economy in the Second Quarter of 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>114</sup>Jul 18, 2018, Consumer Price Index Malaysia June 2018, Department of Statistics Malaysia, https://www.statistics.gov.my

<sup>&</sup>lt;sup>115</sup>Aug 10, 2018, Key Statistics of Labour Force in Malaysia, June 2018, Department of Statistics Malaysia, https://www.statistics.gov.my

<sup>&</sup>lt;sup>116</sup>Aug 03, 2018, Monthly External Trade Statistics June 2018, Department of Statistics Malaysia, https://www.statistics.gov.my

<sup>117</sup> Jul 11, 2018, Monetary Policy Statement, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>118</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>119</sup>Apr 18, 2018 MONTHLY HIGHLIGHTS MARCH 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>120</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>121</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>122</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>123</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

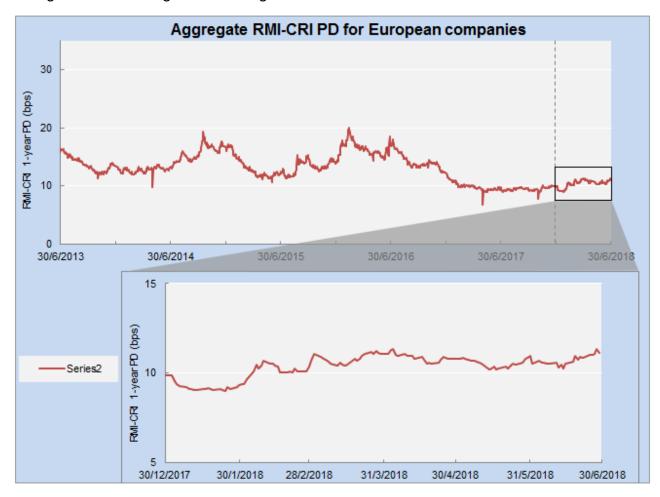
<sup>124</sup> June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>125</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

<sup>&</sup>lt;sup>126</sup>June 30, 2018, Monthly Highlights and Statistics June 2018, Bank Negara Malaysia, http://www.bnm.gov.my

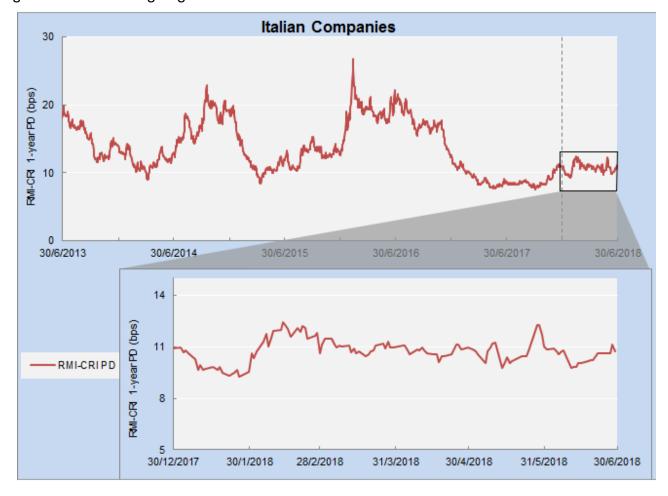
# **Europe**

European firms ended Q2 with a higher aggregate 1-year probability of default (PD) from the end of Q1 2018. Economic data showed that the European economy expanded at a slower pace although unemployment rate recorded a lowest level in June 2018 since December 2008. Euro depreciated by 5.4% against the US dollar in Q2. The European Central Bank (ECB) announced that it expects to end its quantitative easing programme in December 2018 and interest rates will remain at current levels through the summer of 2019. In Q2 2018 GDP increased by 2.1% YoY in Euro area and 2.2% YoY in EU respectively. UK's GDP slightly picked up due to retail spending rebound and higher construction output. Turkey's lira has kept depreciating in Q2 which has become one of the reasons for rating agencies to downgrade its sovereign credit rating.



# **Italian Companies**

The aggregate 1-year RMI PD for Italian companies decreased slightly during the second quarter of 2018, from 11.13bps in last quarter to 10.71 bps by the end of June 2018. Q2 saw credit outlook of Italian companies remain relatively flat despite the political uncertainty. The economy grew by 0.2% over the quarter, and recorded a 1.1% YoY growth. The growth however is the slowest quarterly growth in almost two years together with the increase in unemployment rate. The Italian government is also expected to implement its government's program of lower taxes and more income support. However, the program is expected to cost Italy's government EUR 126mn amid its high debt. With the slowest growth rate in the euro region and facing years of near-stagnation, this does not put Italy in good stead. High public debt and political uncertainty are likely to weigh on the economy in the following quarters of 2018. In addition, Italy's economy minister has already predicted a lower growth and higher government deficit going to 2019.



# **Economy**

- The GDP of Italy is estimated to increase by 0.2% moving from Q1 2018 to Q2 2018 and it is the weakest quarterly growth in almost two years. The economy expanded 1.1% year-over-year. The slowdown was due to foreign trade while domestic demand supported the economy. Despite the slowing economy, the government's program of lower taxes and more income support for the poor is likely to be implemented and could cost as much as EUR 126bn. Italy is expected to have the slowest growth economy in the 19 nation euro region for 2018 and 2019. 127,128
- Italy's unemployment rate was 10.9% in June 2018, a slight increase over May 2018. The country ended the quarter with 23.320mn people employed. 2.866mn people were unemployed, a 0.2% increase over the previous month. Youth unemployment (aged 15-24) was 32.6%, up 0.5% over the previous month. 129

- Italy's manufacturing Purchasing Managers' Index (PMI) an index of sentiment in the manufacturing sector improved to 53.3 in June from 52.7 in February, registering a slight acceleration in growth. However, the growth rate remains below the growth seen at the start of the year. The reason for the slowdown is due to the increasing supply side constraints and slower external demand for high-end Italian manufacturing goods in line with the downturn of the global trade cycle.<sup>130</sup>
- Italy's services PMI rose to 54.3 in June, up from from 53.1 in May. The increase is the
  fastest rise in activity and work since February 2018. The growth is driven by improved
  demand with stronger sales to foreign clients. The net gain in new work was also the
  best record for the past four months. However, business confidence remained close to
  a near two-year low.<sup>131</sup>
- 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 109.4 in April, 108.4
  in May and 109.6 in June. These figures are slightly lower than the 110.5 average
  reported over Q1 2018.<sup>132</sup>
- The confidence climate in June 2018 increased from 113.9 to 116.2. Two components improved: economic from 133.4 to 142.9, future from 116.7 to 122.4 while the other two components deteriorate, personal from 107.7 to 107.1 and current component from 112.4 to 111.8. The balance concerning expectations on unemployment decreased from 24.8 to 9.3. The balance on inflation perceptions referring to the last 12 months improved from -11.8 to -2.9 while the balance on inflation expectations for next 12 months decreased from -11.4 to -18.4.<sup>133</sup>
- Retail sales, indexed by the Markit Retail PMI posted 48.5 during June. This was an improvement from 47.3 in May and this mark the fourth consecutive month that the measure remained below 50. Italy's retail sector endured a challenging month in June as sales fell on both monthly and annual measures. Pressure on consumer incomes, lower footfall, political uncertainty and a lack of new products were reasons cited by companies that weighed on sales. Looking ahead, companies are expecting sales to perform better in July.<sup>134</sup>

#### **Funding & Liquidity**

- Yields on 10-year Italian bonds jumped during Q2 2018, from 1.786% on 30th March 2018 to a 2.680% high on 29th June 2018. The selloff in Italian bonds is largely a result of the political crisis.
- Interest rates on loans (other than bank overdrafts) to non-financial corporations fell during Q2 2018, down from 2.18% in March 2018 to 2.11% in June 2018. Bank interest rates (including revolving loans, overdrafts and extended credit card credit) to corporations fell to 2.85% in June 2018. Loans for house purchases decreased from 1.89% to 1.79% in the second quarter. 135,136,137
- Preliminary estimates for outstanding loans to non-financial institutions stood at 717491.
   Total outstanding loans overall decreased by 3.26% from the previous quarter.<sup>138</sup>

#### **Politics**

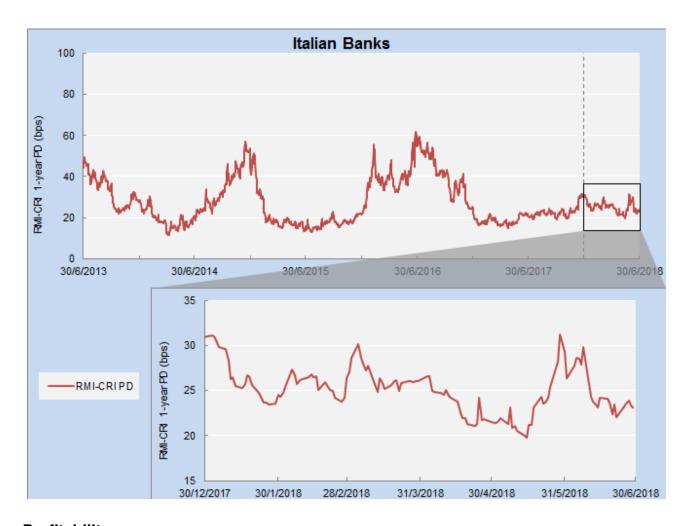
- The formation of the coalition government of Five Star and the league has unsettled financial market as they plan to introduce programs and reforms that pose a challenge to EU fiscal rules. One of the reform is to scrap the pension reform that raised the retirement age and guaranteeing 'citizen's income' for the poor. The risk is that the additional fiscal burden will cripple the economy already laden with debt unless the measures are offset by spending cuts or tax increases. Despite President Sergio Mattarella stepping in to prevent to appointment of a Eurosceptic finance minister, Eurosceptic members of parliament have also been appointed to key posts in the nation's parliament.<sup>139</sup>
- Italy's prime minister, Giuseppe Conte, slammed key features of a Eurozone reform plan planned by France and Germany by taking a hardline position on the economy policy. Italy opposed the creation of a European Monetary Fund, a revamped Eurozone bailout fund. The tough stance towards EU partners is in accordance to the campaign promises by the two parties and it is feared that the new government will emerge as the bloc's new troublemaker and prevent integration in key areas such as trade deals and Brexit talks. The tension between Italy and EU has caused a sell-off in Italian assets in May 2018.<sup>140</sup>
- Italy's latest published public accounts were that of Q1 2018. Total revenues for General government grew by 1.3% and total expenditures grew by 0.2% as compared to the same quarter of the previous year. The growth of total revenues results from an increase in current revenues (+1.5%) and a decrease of total capital revenues (-43.3%). The trend in expenditure results by an increase in current expenditures (0.6%) and a fall in capital expenditures (-6.6%). The General government deficit (net borrowing) to GDP ratio was 3.5% in the first quarter of 2018, compared with the 4.0% in the first quarter of 2017. Italy's debt-to-GDP ratio is set to stand at 133.4% based on latest data in Q1 2018. 141,142

### **Sovereign Credit Ratings**

Moody's placed Italy's rating of Baa2 on review for downgrade due to uncertain prospects of the new Italian government. Fitch did not revise its ratings of BBB with a stable outlook while S&P retained its rating of BBB with a stable outlook.<sup>143</sup>

## Italian Banks

The aggregate 1-year RMI PD for Italian banks decreased slightly over Q2 2018 as Italian banks sees sign of improvement but Italian banks are still facing challenges under uncertain political climate. Investors remain doubtful of Italian banks' profitability and non-performing loans as they lag behind their European competitors. Funding and liquidity has been adequate for Italian banks over Q2, with the increasing credit demand by businesses. In the meantime, asset quality at Italian banks continues to improve with the ratio of new non-performing loans to outstanding loans decreasing. Coverage ratio for Italian banks however decreased which signified that the Italian bank system is still facing challenges.



# **Profitability**

• Italy's biggest bank Unicredit saw its second quarter net profit fall by 13.3% as compared to a year ago due to higher charges and provisions. Its gross non-performing exposure ratio improved to 8.7% with a coverage ratio of 60.9% while its CET1 ratio fell to 12.51% from 13.06% in Q1 2018. Operating earnings of Unicredit is better than analysts' expectations. For Intesa Sanpaolo, another major Italian bank, its net interest income is down 2.7% as compared to a year ago while its CET1 ratio improve to 13.6% from 13.4% in March. For loan loss provisions, Intesa also sees a 6% increase to EUR 694mn in Q2 2018. However, compared to a quarter on quarter basis, CET1 ratio plunged for most banks as the spike in government bond yields hit banks' capital ratios in Q2 2018. Despite the volatility, Italian banks are expected to do better with the recovery in lending and the Italian economy escaping from recession. 144,145,146

#### **Funding & Liquidity**

- The 12-month percentage change in deposits of funds by Italian residents was 4.71% in June 2018, while total deposits of non-domestic residents increased by 4.72%. Bank funding from the Eurosystem decreased by 3.39% compared to June 2017, while debt securities issued by banks fell 18.99% compared to the same period last year.<sup>147</sup>
- Interest charged on business loans (other than bank overdrafts) of over EUR 1mn to non-financial institutions was 1.12% in June 2018, up from the 1.072% reported in March 2018. Similar loans with collateral and/or guarantees were charged with an interest rate of 1.288%, down from 1.486% charged during March 2018. Bank interest rate on loans to sole proprietors was 2.908% in June 2018, slightly down from 2.999% in March 2018.<sup>148</sup>
- The Bank of Italy's liabilities to Euro-area financial counterparties totaled EUR 69.675bn in June 2018.<sup>149</sup>
- Italian bank liabilities towards the Eurosystem decreased to EUR 248bn in May 2018 from EUR 251bn in February 2018. Lenders decreased their funds held at the ECB by 2.6% YoY in May 2018 while capital and reserves decreased to EUR 433bn during the three months ending May 2018.<sup>150</sup>
- According to the latest bank lending survey, Italian banks reported that in the first quarter of 2018, credit supply policies eased slightly for both firms and households, while demand increased further .The demand for business lending improved in the first quarter of 2018. The main contributory factors were low interest rates and spending on fixed investment.<sup>151</sup>

#### **Asset Quality**

- The Bank of Italy said that the ratio of new non-performing loans to outstanding loans fell to 1.7% in the first three months of 2018 from 2.0% in the previous quarter. The non-performing ratio for loans to firms declined to approximately 2.6% from 3.4% in Q4 while a similar measure for loans to households held stable at 1.2%. 152
- Share of non-performing loans to total loans fell from 11.1% to 10.8% in Q1 2018. The coverage ratio at Italian banks has rose to 55.4% from 50.6%.<sup>153</sup>

<sup>&</sup>lt;sup>127</sup>July 31, 2018, Preliminary estimate of GDP, Italian National Institute of Statistics, istat.it

<sup>&</sup>lt;sup>128</sup>July 31, 2018, Italian Economic Growth Slows to Weakest in Almost Two Years, Bloomberg, https://www.bloomberg.com/

<sup>&</sup>lt;sup>129</sup>July 31, 2018, Employment and unemployment: provisional data, Italian National Institute of Statistics, istat.it

<sup>&</sup>lt;sup>130</sup>July 4, 2018, Italy PMI improves in June, but remains suggestive of only slight rise in Q2 GDP, Markit, https://www.markiteconomics.com/

<sup>&</sup>lt;sup>131</sup>July 4, 2018, Growth of Italys service sector strengthens in June, Markit, https://www.markiteconomics.com/

<sup>&</sup>lt;sup>132</sup>August 15, 2018, Economic sentiment indicator for Italy, Eurostat, ec.europa.eu/eurostat

<sup>&</sup>lt;sup>133</sup>June 27 2018, Consumer and business confidence, Italian National Institute of Statistics, istat.it

<sup>&</sup>lt;sup>134</sup>July 5, 2018, Retail sector records further drop in sales during June, Markit, https://www.markiteconomics.com/

<sup>&</sup>lt;sup>135</sup>August,2018 Italian MFIs: Interest per annum on new loans to non-financial corporations,, ECB, sd-w.ecb.europa.eu

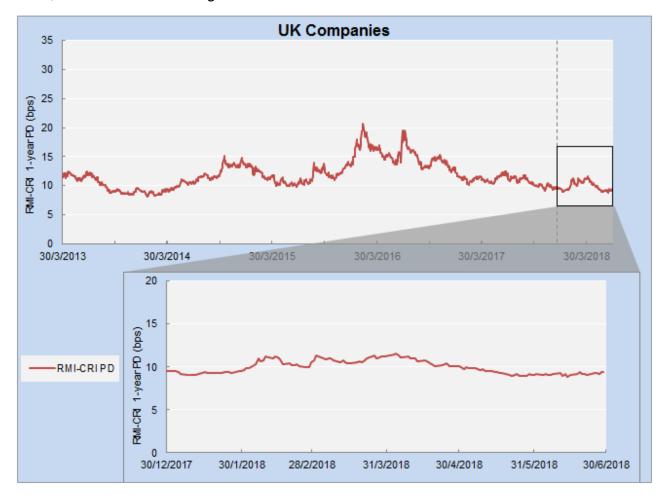
<sup>&</sup>lt;sup>136</sup>August,2018 Italian MFIs: Revolving loans & overdrafts, convenience & extended credit card credit to corporations,, ECB, sdw.ecb.europa.eu

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- <sup>140</sup>June 27, 2018 Conte takes hard line on EU economic and immigration policy, FT, https://www.ft.com
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- 142 August, 2018 General Government gross debt quarterly data, Eurostat, ec.europa.eu/eurostat
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- 144 August 7, 2018, UniCredit Confirms Targets After Second Quarter Profit Better Than Forecast, New York Times https://www.nytimes.com
- 145 August 1, 2018, Intesa Quality of Earnings Fails to Impress After Profit Beats, Bloomberg, https://www.bloomberg.com/
- 146 August 10, 2018, Italian Banks' Sovereign Debt Link Evokes Doom Loop Memories, Bloomberg, https://www.bloomberg.com/
- <sup>147</sup>August, 2018, [TSC40600] Bank funding (12-month percentage changes), Banca Italia, https://infostat.bancaditalia.it
- 148 August, 2018, Bank interest rates on euro loans to non-financial corporations, Banca Italia, http://www.bancaditalia.it
- <sup>149</sup>August, 2018, Bank of Italy balance sheet: liabilities liabilities to euro area financial counterparties denominated in euros, Banca Italia, http://www.bancaditalia.it
- <sup>150</sup>July, 2018, Economic bulletin July 2018, Banca Italia, http://www.bancaditalia.it
- <sup>151</sup>July, 2018, Economic bulletin July 2018,, Banca Italia, http://www.bancaditalia.it
- 152 July, 2018, Economic bulletin July 2018,, Banca Italia, http://www.bancaditalia.it
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# **UK Companies**

The aggregate RMI-CRI 1-year PD for companies in the UK remained stable in Q2 but displayed a subtle uptrend since Q2 of last year. GDP growth improved slightly at 0.4% QoQ. Consumer spending for the quarter posted modest gains against a backdrop of a healthy labor market. The trade deficit widened on the account of the increase in imports and drop in machinery exports. The credit outlook for the UK remains negative due to the hassling issue of the uncertainty brought about by Brexit and its complex dealings on various areas, such as trade and migration.



#### **Economy**

- The UK's Q2 2018 GDP was estimated to have grown by 0.4% QoQ, up from 0.2% in Q1 2018, driven by the services and offset by a decline in production. Three month growth continued to recover from flat growth seen in the three months to April 2018 while growth over the first half of the year remained modest by historical standards. Strong growth in services was driven by retail, which saw a boost from the good weather. Production continued its downward trend, with notable drops in manufacturing and energy production.<sup>154</sup>
- The unemployment rate improved during Q2 as it fell to 4% from 4.3% in the preceding three months. The employment rate increased slightly from 75.4% in Q1 to 75.6% in Q2, setting a new high since comparable records started in 1971. Latest estimates show that average weekly earnings for employees in Great Britain in nominal terms (that is, not adjusted for price inflation) increased by 2.7% excluding bonuses, and by 2.4% including bonuses, compared with a year earlier.<sup>155</sup>
- Consumer spending likely increased during the quarter following Visa's UK Consumer Spending Index. Overall spending declined 2% YoY in April, but gained 0.9% YoY and

- 0.7% YoY in May and June. Visa said that eCommerce and Face-to-Face categories noted higher spending compared to a year ago during June. On a sectoral basis, Hotels, Restaurants & Bars signaled the strongest increase in spend (+5.4% compared to June 2017), likely boosted by much warmer weather and sporting events. Concurrently, Food & Drink retailers registered a solid increase in expenditure (+2.0%). 156
- In the 3 months to June 2018, the deficit on trade in goods and services widened by GBP 4.7bn to GBP 8.6bn. Falling car and aircraft exports and rising imports of unspecified goods (including non-monetary gold) to and from non-EU countries were the leading factors in the widening of the total trade deficit in the three months to June 2018.<sup>157</sup>
- The Markit/CIPS Purchasing Managers' Index (PMI) for the manufacturing sector continued to fall as it hit 54.3 in June, down from 54.8 in March. The index climbed to 58.2 in November last year, but has since fallen to remain above 50. The softer growth patch of the UK manufacturing sector continued at the start of the third quarter. Q2 saw slower rates of expansion in both output and new orders, as weaker growth of new work from domestic sources offset a stronger increase in new export orders. Price pressures also remained elevated as a strong increase in average input costs led to the steepest rise in selling prices since February.<sup>158</sup>
- In the construction sector, the PMI index was at 53.1 for June 2018, which was a vast improvement from a 20-month low of 47.0 in March. UK construction companies achieved a stronger expansion of business activity levels during the quarter, underpinned by the fastest increase in residential work for just over two-and-a-half years. The latest survey also indicated that new business growth gained momentum, which contributed to the largest rise in employment numbers since December 2015.<sup>159</sup>

# Monetary

- In its meeting on August 2, 2018, the Monetary Policy Committee (MPC) of the Bank of England unanimously voted to raise the Bank Rate to 0.75%. The Committee also voted unanimously to maintain the stock of sterling non-financial investment-grade corporate bond purchases at GBP 10bn and the stock of UK government purchases at GBP 435bn. The purchasing activities would be financed by the issuance of central bank reserves. Since the May Inflation Report, the near-term outlook has evolved broadly in line with the MPC's expectations. Recent data appear to confirm that the dip in output in the first quarter was temporary, with momentum recovering in the second quarter. The labour market has continued to tighten and unit labour cost growth has firmed.<sup>160</sup>
- CPI 12-month rate was at 2.3% in June, down from 2.5% in March 2018. The rate has
  fallen after reaching a recent high of 2.8% towards the end of 2017. Rising prices for
  motor fuels and domestic gas and electricity produced the largest upward contributions
  to change in the rate between May and June 2018. Falling prices for clothing and
  games, toys and hobbies provided the largest downward effects.<sup>161</sup>

#### **Politics**

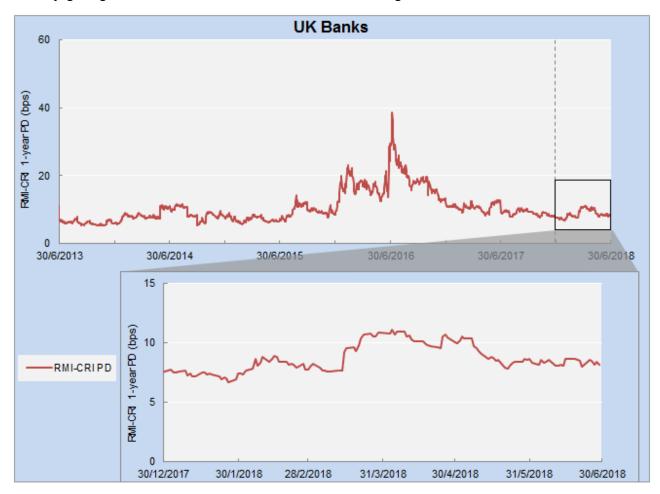
- The UK will formally leave the single market at the end of the Article 50 process in March 2019. So far UK and EU negotiators have reached agreement on about 80% of the draft withdrawal deal, which they intend to finalise by October. There is full agreement on the terms of the transition period, which will last for 21 months after the UK's formal withdrawal. During this period the UK will maintain access to the single market, but will be bound by the obligations of membership. However, the UK will not be bound by the EU's trade policy, enabling it to negotiate and agree (but not implement) new trade deals.
- The UK's departure from the EU may encourage policymakers to address some of the structural deficiencies that have held back the economy in recent years, including lackluster productivity growth, insufficient innovation and poor infrastructure. In 2016 the Chancellor of the Exchequer, Philip Hammond, announced a National Productivity Investment Fund to boost the UK's digital infrastructure and spending on research and development over the next five years. Proposals to reform the UK's housing market have focused on introducing greater speed and flexibility into the planning process.

#### **Sovereign Credit Ratings**

 Moody's long term rating on the UK remained at Aa2, two notches below the highest possible Aaa rating. Meanwhile, S&P's 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 remained flat in Q2 2018 as lenders posted a slight dip in profitability during the quarter. Net interest margins moving forward may fall slightly given the rate hike from the central bank and lower asset quality from loans. However, defaults are likely to remain low given the strong job market, thereby giving a stable credit outlook for the UK banking sector.



#### **Profitability**

- Aggregate profits at six UK domiciled banks fell 1.9% to GBP 1.31bn but gained 14% from a year ago. M4, or banking money and credit growth expanded at a slower pace in June at 3.4% YoY from 3.9% YoY in March.<sup>162</sup>
- Royal Bank of Scotland said that the bank will pay its first dividend in 10 years after reporting a profit of GBP 888mn for the first half of the year.<sup>163</sup>
- Barclays reported improved figures for its second-quarter earnings, a welcome sign to markets after what has been a challenging few years. The British bank reported pretax profits of GBP1.9bn for the quarter. This nearly tripled the pretax profit of GBP 659mn for same period last year and above a consensus estimate compiled by the bank, leading it to announce its best quarter in more than three years. 164
- Profits at Lloyds Banking Group jumped by almost a quarter in the first half of the year despite taking another hit of GBP 550mn to cover claims from mis-sold payment protection insurance.<sup>165</sup>

## **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 mid-June 2018. Funding was reported to have increased, while retail deposit funding was reported to have been unchanged. Lenders expected total funding volumes to increase further in 2018 Q3, driven mainly by 'other' funding.<sup>166</sup>
- Lenders reported that their total capital levels increased in Q2. This was mainly due to changes in the size of their balance sheets, which were reported to have had a positive contribution to the demand for capital. The total level of capital was expected to increase slightly in Q3.<sup>167</sup>
- Banks said that the internal price charged to business units to fund the flow of new loans had decreased in Q2. This was reported to have been driven by a fall in retail deposit spreads and short-term wholesale funding spreads. Lenders expected no change in the transfer price in Q3.<sup>168</sup>

#### **Asset Quality**

- The total write-offs of sterling denominated loans rose from GBP 928mn in Q4 2017 to GBP 1069mn in Q1, attributed in part to non-financial loan write-offs to businesses, which increased from GBP 218mn to GBP 462mn. Write-offs to individuals decreased from GBP 637mn to GBP 560mn while write-offs to non-residents increased slightly from GBP 1mn to GBP 15mn.<sup>169</sup>
- Write-offs on loans denominated in foreign currency decreased from GBP 271mn in Q4 2017 to GBP 98mn in Q1 2018, driven by a 12 fold decrease in the write-offs on loans to non-residents, which constituted the largest share of the total write-offs.<sup>170</sup>

<sup>&</sup>lt;sup>154</sup>Aug 8, 2018 GDP monthly estimate, UK: June 2018, ONS, http://www.ons.gov.uk

<sup>&</sup>lt;sup>155</sup>Aug 14, 2018 UK labour market: April 2018, ONS, http://www.ons.gov.uk

<sup>&</sup>lt;sup>156</sup>Aug 24, 2018 Weather and World Cup prompt first back-to-back jump in household spending in over a year, Visa, http://visa.co.uk

<sup>&</sup>lt;sup>157</sup>Aug 10, 2018 UK trade: June 2018, ONS, http://www.ons.gov.uk

<sup>158</sup> Aug 1, 2018 UK manufacturing sector starts third quarter on softer footing pressures intensify, Markit, https://www.markiteconomics.com/

<sup>&</sup>lt;sup>159</sup>Aug 2, 2018 Fastest rise in construction output since May 2017, Markit, https://www.markiteconomics.com/

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- <sup>164</sup>Aug 2, 2018 Barclays triples profits in best quarter for more than three years, CNBC, https://www.cnbc.com
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- <sup>170</sup>Apr 30th, 2018 Bankstats (Monetary & Financial Statistics) March 2018, Bank of England, http://www.bankofengland.co.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 A and Appendix B 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 May 15, 2018, using data up to June 30, 2018. For a detailed description of RMI-CRI's default forecast model, the Technical Report is available on our website.

Appendix A 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 2018 and Q2 2018. 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 B 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.

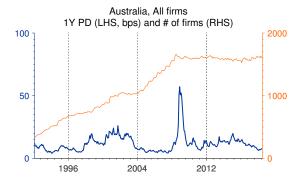
Appendix C provides common macroeconomic, corporate credit and sovereign risk indicators for each economy along with the RMI-CRI 1-year aggregate PD for financial and non-financial firms. The graphs on the left give historical context to the values, and the table on the right gives the data from the 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 D gives a more detailed description of the data in Appendix C

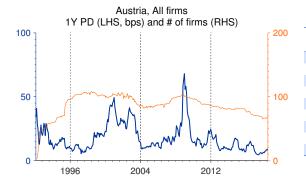
# A PD by economies



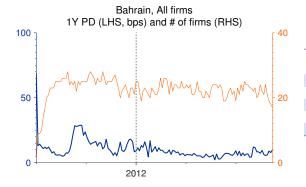
Argentina		2018Q1		2018	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	11.7	17.5	20.0	31.0	10.1	20.4
Basic Materials	7	52.0	199.7	95.1	208.3	3.0	128.7
Communications	5	2.8	142.0	9.1	107.2	4.4	59.6
Consumer Cyclical	5	41.4	49.1	48.5	162.0	16.3	114.6
Consumer Non-cyclical	17	15.1	47.4	14.0	54.7	0.8	12.4
Diversified	2	19.3	4.3	59.0	22.1	39.8	17.8
Energy	2	34.0	45.7	55.0	72.9	21.0	27.2
Industrial	8	18.3	13.9	28.5	39.0	12.1	27.1
Technology	1	0.0	-	0.0	-	-0.0	-
Utilities	12	13.0	27.4	29.2	62.3	15.2	35.9



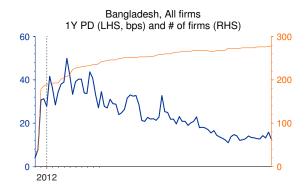
Australia		201	8Q1	201	8Q2	Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	173	1.8	14.4	1.6	17.4	0.0	8.2
Basic Materials	550	7.3	70.8	9.5	122.9	1.4	82.9
Communications	108	13.4	42.3	15.3	59.5	0.7	29.0
Consumer Cyclical	83	4.2	31.3	5.9	32.7	0.6	15.3
Consumer Non-cyclical	258	5.3	69.0	6.7	81.6	0.5	22.5
Diversified	6	2.5	14.5	2.5	24.5	-0.0	10.5
Energy	156	13.6	163.4	17.6	194.7	1.9	119.6
Industrial	116	7.3	29.2	8.4	34.1	0.6	17.5
Technology	120	9.2	55.7	12.3	93.1	1.4	57.0
Utilities	13	7.1	41.4	5.4	77.6	2.1	41.8



Austria 2018Q1 2018Q2 Q2-Q1 # Median St.Dev. Median St.Dev. Median St.Dev.	
" " " " " " " " " " " " " " " " " " " "	Austria
Financials 22 3.8 15.3 1.3 12.7 -0.4 4	Financials
Basic Materials 3 3.6 3.9 4.3 2.7 0.3 1	Basic Materials
Communications 1 2.3 - 5.4 - 3.1 -	Communications
Consumer Cyclical 10 9.6 64.4 15.0 68.0 1.4 6	Consumer Cyclical
Consumer Non-cyclical 5 20.2 10.3 14.9 14.7 -1.9 9	Consumer Non-cyclical
Energy 3 8.4 5.0 9.0 10.5 0.7 5	Energy
Industrial 16 9.3 39.5 11.8 27.6 0.1 17	Industrial
Technology 4 24.8 24.1 18.1 22.1 0.2 8	Technology
Utilities 2 2.1 0.2 2.2 1.2 0.1 1	Utilities



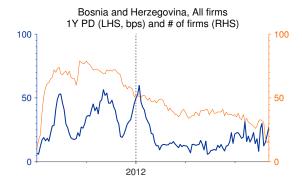
Bahrain		2018	3Q1	2018	3Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	17.1	20.7	17.9	25.8	0.4	10.3
Basic Materials	1	3.4	-	3.4	-	0.0	-
Communications	1	4.4	-	3.3	-	-1.1	_
Consumer Cyclical	3	0.1	0.1	0.1	0.1	0.0	0.0
Industrial	1	71.5	-	94.2	-	22.7	-



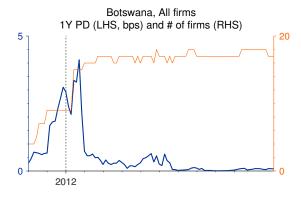
Bangladesh	Bangladesh		2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	99	22.9	33.6	23.1	29.0	-0.3	14.4
Basic Materials	18	6.8	20.1	7.0	27.9	0.2	11.2
Communications	7	2.4	5.3	1.8	5.7	0.3	1.5
Consumer Cyclical	64	22.8	38.4	18.3	48.0	0.1	16.9
Consumer Non-cyclical	42	7.4	26.9	4.0	29.1	-0.1	12.3
Diversified	1	32.5	-	58.0	-	25.5	-
Energy	5	23.9	38.0	10.8	29.0	-12.6	9.8
Industrial	32	12.8	30.0	9.8	32.4	-0.3	7.9
Technology	1	4.8	-	1.9	-	-2.8	-
Utilities	7	5.3	17.7	6.5	18.6	0.7	2.8



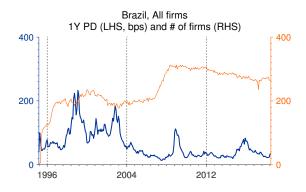
Belgium		201	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	35	0.3	11.2	0.3	17.6	-0.0	6.8
Basic Materials	8	2.9	16.4	3.5	25.7	0.2	9.7
Communications	7	3.7	38.9	6.3	33.8	1.3	6.2
Consumer Cyclical	7	7.7	13.5	8.2	7.6	-0.2	6.3
Consumer Non-cyclical	30	9.9	23.7	8.9	18.6	0.1	9.2
Diversified	5	0.1	1.2	0.1	1.4	0.0	0.2
Energy	1	33.5	-	20.6	-	-12.9	-
Industrial	25	10.6	32.8	12.9	29.9	0.0	12.9
Technology	5	3.9	8.0	3.7	11.7	-0.1	8.1
Utilities	2	2.7	2.2	2.6	2.3	-0.1	0.2



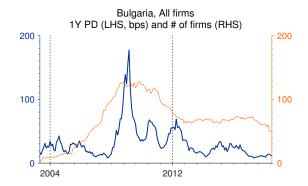
Bosnia and Herzegovina		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	22.1	15.2	27.1	6.6	5.0	8.6
Basic Materials	2	13.7	4.2	15.4	0.3	1.7	4.5
Communications	2	0.5	0.4	2.9	2.6	2.4	3.0
Consumer Cyclical	1	12.5	-	27.3	-	14.8	_
Consumer Non-cyclical	4	27.7	14.9	18.5	14.4	-1.7	8.1
Industrial	2	51.0	43.8	45.2	56.5	-5.8	12.6
Utilities	4	87.9	108.5	40.3	25.5	-31.4	102.3



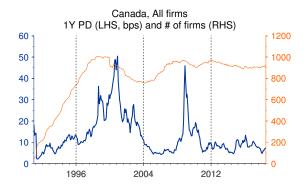
Botswana		201	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	0.1	5.2	0.1	5.8	0.0	0.6
Consumer Cyclical	3	0.0	0.1	0.0	0.1	0.0	0.0
Consumer Non-cyclical	2	0.1	0.1	0.7	1.0	0.7	0.9
Energy	1	0.0	-	0.0	-	-0.0	-
Industrial	1	1.2	-	1.2	-	-0.0	-



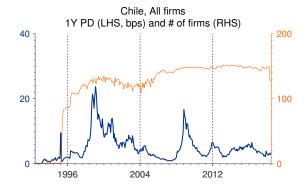
Brazil	Brazil		2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	55	10.9	38.6	16.6	54.4	8.9	24.8
Basic Materials	20	32.3	277.1	46.4	251.1	3.4	78.2
Communications	9	40.6	207.0	34.7	504.8	2.7	425.2
Consumer Cyclical	51	21.4	310.6	35.8	451.4	11.0	170.5
Consumer Non-cyclical	48	35.5	227.6	41.2	232.1	5.1	112.4
Diversified	8	26.6	123.7	59.6	217.0	33.1	96.3
Energy	12	29.5	112.2	60.7	213.9	20.3	107.1
Industrial	21	43.5	749.8	70.2	520.8	6.8	261.6
Technology	6	19.1	216.7	33.6	787.6	14.5	572.7
Utilities	28	17.7	54.3	22.6	75.9	3.0	51.8



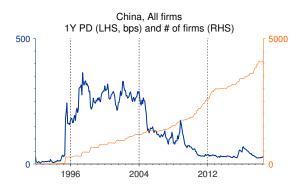
Bulgaria		201	8Q1	2018Q2		Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	11.9	6.2	9.2	8.3	-0.0	6.7
Basic Materials	3	8.1	4.2	9.4	6.0	2.7	3.7
Communications	1	87.6	-	138.9	-	51.3	-
Consumer Cyclical	1	8.6	-	11.0	-	2.4	-
Consumer Non-cyclical	7	28.4	70.4	45.9	102.1	3.4	68.0
Diversified	9	19.7	26.0	30.5	33.8	8.9	10.8
Energy	2	256.8	333.7	121.1	119.0	-135.7	214.7
Industrial	13	7.3	18.5	7.1	26.9	3.3	9.8
Utilities	1	11.5	-	16.8	-	5.3	-



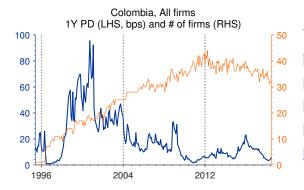
Canada		2018	8Q1	201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	146	0.4	129.3	0.5	133.4	0.0	12.8
Basic Materials	254	12.3	126.7	19.5	196.9	0.5	116.0
Communications	42	16.5	390.7	15.3	287.1	0.0	189.9
Consumer Cyclical	59	1.4	61.5	1.3	181.4	0.0	168.0
Consumer Non-cyclical	125	7.4	675.4	10.3	169.4	0.4	599.6
Diversified	5	46.1	1045.4	54.8	1798.4	7.2	753.9
Energy	124	21.2	278.0	16.7	291.3	0.0	210.9
Industrial	71	2.9	170.3	5.0	122.9	0.0	85.2
Technology	46	22.4	216.2	53.7	319.0	19.3	140.5
Utilities	16	0.2	54.3	0.3	33.4	0.0	47.8



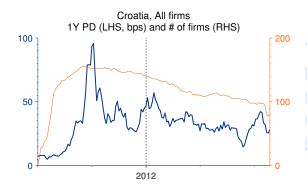
Chile		201	8Q1	201	8Q2	Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	28	0.8	3.5	1.1	4.7	0.2	1.6
Basic Materials	15	4.7	71.3	9.6	320.9	-0.2	253.8
Communications	2	11.4	6.6	11.4	5.6	0.1	1.0
Consumer Cyclical	13	12.7	28.5	12.3	37.2	0.5	10.4
Consumer Non-cyclical	27	5.2	26.9	4.7	34.0	0.1	11.4
Diversified	5	5.1	19.6	5.8	25.0	0.7	6.0
Energy	2	5.1	7.2	1.3	1.8	-3.8	5.4
Industrial	19	7.2	18.8	8.5	22.3	1.2	6.6
Technology	1	1.7	-	3.1	-	1.4	-
Utilities	15	2.3	15.6	3.2	21.9	0.5	10.4



China	hina		8Q1	201	3Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	314	36.8	87.0	50.3	97.0	6.8	53.5
Basic Materials	435	29.6	95.4	34.3	126.1	3.7	46.7
Communications	230	17.9	106.1	25.0	127.5	3.1	59.6
Consumer Cyclical	682	27.0	119.8	32.2	125.5	2.4	45.4
Consumer Non-cyclical	668	10.3	98.7	12.9	75.4	0.9	54.1
Diversified	21	42.9	63.0	53.8	62.6	3.8	20.6
Energy	125	35.0	79.8	40.8	90.6	2.1	32.1
Industrial	1204	29.3	124.7	37.2	135.8	5.3	46.1
Technology	274	17.7	100.6	22.7	91.6	2.9	54.3
Utilities	100	44.6	82.9	47.2	97.4	4.4	35.9



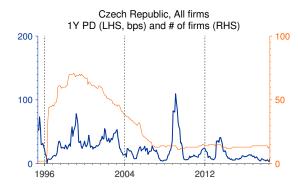
Colombia		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	9	2.3	3.4	2.2	4.0	-0.1	1.3
Basic Materials	2	8.2	10.5	13.1	16.2	4.9	5.7
Communications	1	4.6	-	5.6	-	1.0	-
Consumer Cyclical	2	65.6	2.9	71.2	26.3	5.6	23.4
Consumer Non-cyclical	1	0.0	-	0.0	-	0.0	-
Diversified	1	79.2	-	52.8	-	-26.4	-
Energy	4	6.0	5.6	8.9	3.4	1.0	3.1
Industrial	8	4.8	9.0	6.7	6.6	1.5	3.9
Utilities	3	1.0	1.4	3.9	6.6	1.0	6.6



Croatia		201	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	8	13.5	17.8	10.6	21.8	-0.8	8.1
Basic Materials	2	530.7	601.9	625.8	770.9	95.1	169.0
Communications	4	63.6	72.3	11.1	67.2	0.5	62.1
Consumer Cyclical	28	11.3	60.8	12.9	54.6	0.7	22.8
Consumer Non-cyclical	20	58.7	399.3	53.2	401.6	0.4	97.4
Energy	2	0.6	0.8	0.6	0.9	0.0	0.0
Industrial	15	51.8	312.4	53.6	225.1	-0.1	94.6
Basic Materials Communications Consumer Cyclical Consumer Non-cyclical Energy	2 4 28 20 2	530.7 63.6 11.3 58.7 0.6	601.9 72.3 60.8 399.3 0.8	625.8 11.1 12.9 53.2 0.6	770.9 67.2 54.6 401.6 0.9	95.1 0.5 0.7 0.4 0.0	169 62 22 97



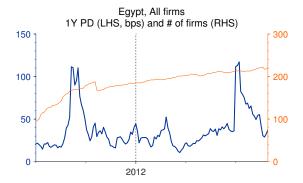
Cyprus		2018Q1		201	2018Q2		-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	16	21.1	39.0	15.3	80.3	0.6	52.2
Basic Materials	4	24.2	23.3	42.6	45.7	18.3	22.9
Consumer Cyclical	8	31.7	42.1	41.9	38.1	5.9	14.8
Consumer Non-cyclical	6	18.1	18.1	33.0	27.2	13.5	19.7
Energy	3	26.0	58.5	10.8	43.1	-20.0	15.8
Industrial	2	1.9	2.2	2.0	2.6	0.2	0.3
Technology	2	43.3	51.0	99.8	121 6	56.6	70.6



Czech Republic		2018Q1		201	2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	2.8	1.0	5.0	2.2	2.2	1.2
Communications	2	7.9	9.8	10.6	14.0	2.8	4.2
Consumer Cyclical	2	23.7	18.8	29.8	30.8	6.1	12.0
Consumer Non-cyclical	2	3.2	1.7	7.7	6.9	4.5	5.2
Diversified	1	11.0	-	9.9	-	-1.1	-
Energy	2	13.0	13.3	10.5	11.3	-2.4	2.0
Industrial	1	8.3	-	10.1	-	1.8	-
Utilities	1	4.2	-	4.4	-	0.2	_



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Denmark		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	40	6.5	15.5	4.2	15.4	-0.2	9.1
Basic Materials	1	0.1	-	0.1	_	-0.0	-
Communications	6	9.8	18.4	10.8	14.2	-1.4	5.7
Consumer Cyclical	17	21.2	45.3	23.5	24.3	0.8	31.6
Consumer Non-cyclical	35	6.4	159.3	5.0	58.0	-0.5	104.7
Energy	3	6.6	13.9	6.6	17.5	2.3	3.9
Industrial	35	12.1	54.2	13.0	61.1	-0.4	21.6
Technology	10	8.8	44.8	11.9	33.4	-1.5	21.8
Utilities	1	1.7	-	2.4	-	0.6	-



Egypt		201	8Q1	2018Q2		Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	70	21.2	28.7	25.7	43.8	6.6	23.0
Basic Materials	24	31.6	58.4	37.6	102.4	5.1	48.6
Communications	7	94.9	87.1	98.4	128.7	3.5	76.7
Consumer Cyclical	24	30.6	49.0	43.2	50.6	1.6	42.9
Consumer Non-cyclical	50	34.3	58.8	34.6	75.2	1.9	27.9
Diversified	2	61.6	82.8	199.9	276.8	138.2	194.0
Energy	1	93.5	-	89.0	-	-4.5	-
Industrial	37	45.3	74.3	45.7	91.4	6.4	43.1
Technology	2	28.6	36.7	16.6	17.4	-12.0	19.3
Utilities	1	90.0	-	167.6	-	77.7	-



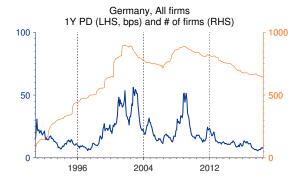
Estonia		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	5.3	1.7	8.1	3.9	2.6	2.3
Communications	1	1.2	-	1.9	-	0.7	-
Consumer Cyclical	5	0.5	23.7	0.6	31.3	0.1	7.9
Consumer Non-cyclical	1	15.8	-	23.1	_	7.3	_
Industrial	4	2.4	3.9	3.1	5.1	0.8	1.2
Utilities	1	2.0	-	2.0	-	0.0	-



Finland		2018Q1		201	2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	21	2.1	15.0	2.0	3.3	-0.0	14.5
Basic Materials	6	5.6	16.2	4.5	14.8	-0.6	2.3
Communications	15	3.3	21.3	4.1	34.9	-0.4	16.4
Consumer Cyclical	15	9.8	17.4	4.1	17.2	-0.5	9.9
Consumer Non-cyclical	29	6.5	142.1	6.9	154.3	-0.1	194.2
Energy	2	53.2	74.3	114.9	161.4	61.8	87.1
Industrial	33	7.0	39.1	6.0	29.1	-1.0	20.4
Technology	19	8.9	18.6	6.7	11.9	-1.1	8.0
Utilities	1	1.6	-	1.5	-	-0.1	-



France		2018Q1		2018Q2		Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	89	1.4	10.1	1.4	10.8	-0.0	4.6
Basic Materials	19	12.9	82.3	11.1	101.8	0.2	22.1
Communications	56	12.5	42.6	11.1	40.3	-0.0	16.1
Consumer Cyclical	81	9.3	32.9	10.7	43.8	0.6	20.2
Consumer Non-cyclical	136	9.9	29.7	9.9	35.9	0.1	21.8
Diversified	4	35.3	73.1	49.2	178.9	13.9	108.4
Energy	14	12.3	23.1	9.7	22.1	-2.3	11.2
Industrial	111	7.6	43.8	8.9	52.6	0.3	19.6
Technology	70	7.9	31.1	8.3	56.8	0.1	32.0
Utilities	10	4.5	28.0	4.3	18.3	-0.0	10.8



Germany		201	8Q1	2018Q2		Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	160	3.9	32.6	3.7	35.1	-0.1	25.9
Basic Materials	29	7.0	60.4	9.3	356.4	-0.0	300.5
Communications	64	14.2	62.0	19.4	183.6	-0.1	159.7
Consumer Cyclical	75	9.3	134.5	10.7	29.2	0.2	127.4
Consumer Non-cyclical	92	9.0	47.6	10.9	57.8	-0.1	38.6
Diversified	5	32.8	56.2	42.0	23.9	5.4	39.4
Energy	18	26.3	135.9	20.1	53.4	-3.6	91.8
Industrial	117	8.4	167.1	9.8	164.2	0.1	79.1
Technology	68	9.2	192.3	8.4	159.1	-0.0	39.9
Utilities	11	7.8	35.1	6.5	31.7	-1.1	4.3



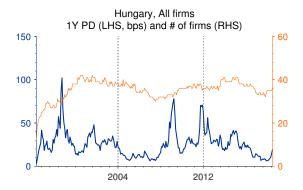
Ghana		201	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	7	7.4	6.5	20.1	8.3	15.6	5.5
Basic Materials	2	273.8	383.1	8.1	7.6	-265.7	375.5
Consumer Cyclical	1	55.2	-	1.3	-	-53.9	-
Consumer Non-cyclical	7	2.6	271.1	4.6	356.6	2.0	88.9
Energy	2	5.4	7.0	31.5	35.3	26.1	28.4



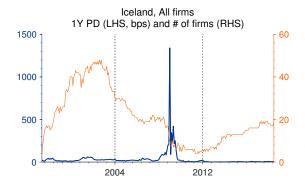
Greece		201	8Q1	2018Q2		Q2-	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	21	6.7	37.6	20.2	55.5	3.4	21.0
Basic Materials	10	18.9	153.1	37.2	304.0	18.3	150.9
Communications	9	76.7	131.9	174.0	358.3	101.8	255.4
Consumer Cyclical	36	32.3	94.1	53.0	128.5	3.2	58.3
Consumer Non-cyclical	35	20.5	36.4	33.3	156.8	9.1	143.5
Diversified	1	11.7	-	13.8	-	2.1	-
Energy	7	27.8	299.6	36.4	853.1	8.6	555.6
Industrial	49	66.1	196.0	77.6	211.1	5.6	125.2
Technology	12	13.7	22.4	21.0	25.6	4.6	16.8
Utilities	5	2.3	26.7	2.9	54.6	0.5	27.9



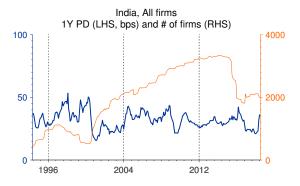
Hong Kong		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	317	7.0	19.6	8.5	30.9	0.8	19.0
Basic Materials	57	13.8	75.9	17.3	121.9	2.9	59.5
Communications	79	5.7	42.8	6.5	51.7	0.7	27.0
Consumer Cyclical	306	4.9	23.7	6.2	36.2	0.5	21.6
Consumer Non-cyclical	185	5.3	35.2	6.0	40.1	0.4	19.2
Diversified	29	4.8	23.5	7.0	28.3	0.9	6.2
Energy	52	20.7	185.0	26.0	260.0	4.0	103.1
Industrial	245	7.3	67.4	11.2	104.6	1.4	45.1
Technology	55	8.3	45.4	10.1	46.9	1.7	17.8
Utilities	24	7.2	28.5	5.3	41.2	0.2	25.5



Hungary		2018Q1		2018Q2		Q2	·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	12	7.0	7.0	13.3	9.3	3.6	7.4
Communications	3	8.8	16.8	22.9	16.6	4.7	5.8
Consumer Cyclical	2	45.1	51.0	66.9	69.4	21.8	18.5
Consumer Non-cyclical	7	33.1	115.0	21.9	44.7	0.3	76.4
Diversified	1	40.0	-	91.7	-	51.7	-
Energy	2	7.7	1.3	17.8	1.9	10.0	3.1
Industrial	4	19.0	8.1	43.6	12.9	20.0	12.5
Technology	1	64.7	-	40.4	-	-24.3	-
Utilities	3	2.1	4.7	5.7	10.0	3.6	5.3



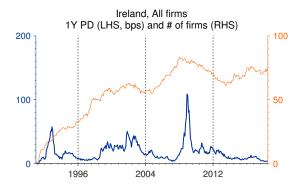
Iceland		2018Q1		2018	3Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	6	2.4	1.6	3.6	2.5	1.2	0.9
Communications	2	13.1	13.5	18.7	20.8	5.6	7.3
Consumer Cyclical	2	14.6	14.3	22.0	26.3	7.4	12.0
Consumer Non-cyclical	2	7.3	2.9	9.8	7.1	2.5	4.2
Energy	2	11.7	5.4	14.9	6.3	3.2	0.9
Industrial	2	4.8	4.7	6.4	6.7	1.5	2.1
Technology	1	13.8	-	14.7	-	0.9	-



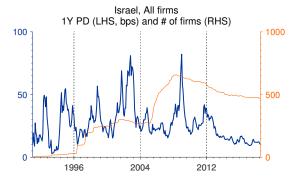
India		2018	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	250	0.9	19.2	1.3	12.9	0.1	11.1
Basic Materials	263	42.8	381.1	58.2	565.0	9.6	254.9
Communications	82	31.8	495.0	41.5	396.1	3.8	333.0
Consumer Cyclical	391	37.2	445.7	53.0	609.4	7.7	230.9
Consumer Non-cyclical	327	22.6	275.4	30.2	428.2	2.6	205.8
Diversified	19	75.4	407.5	87.2	563.7	8.3	222.4
Energy	37	33.4	259.3	74.3	754.9	24.2	508.7
Industrial	452	39.8	373.4	59.4	651.7	12.4	349.4
Technology	100	18.9	265.4	25.9	428.3	2.7	214.9
Utilities	32	144.9	641.4	249.6	1669.5	71.5	1142.8



Indonesia		201	2018Q1		2018Q2		-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	139	17.4	21.5	20.7	30.0	2.5	17.4
Basic Materials	49	26.5	64.0	32.5	94.3	1.4	43.4
Communications	28	17.4	84.6	38.7	154.3	14.9	75.7
Consumer Cyclical	78	24.1	50.5	28.2	67.0	1.5	39.7
Consumer Non-cyclical	87	16.2	65.8	21.3	104.4	1.0	65.5
Diversified	2	38.5	34.8	50.8	38.4	12.3	3.5
Energy	36	12.4	76.3	14.0	105.1	0.7	71.1
Industrial	82	24.8	64.9	49.1	218.6	6.8	203.1
Technology	6	32.8	72.4	38.7	119.6	8.0	62.2
Utilities	5	25.9	46.1	48.3	31.2	4.8	29.6



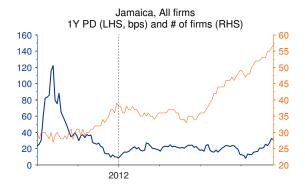
Ireland		201	2018Q1		2018Q2		-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	1.0	5.5	2.0	6.1	-0.0	2.7
Basic Materials	11	15.4	40.1	22.0	39.6	-1.2	27.6
Communications	2	14.4	17.5	13.9	15.1	-0.5	2.4
Consumer Cyclical	8	1.8	2.9	1.6	3.2	-0.1	0.7
Consumer Non-cyclical	25	4.3	152.2	7.7	59.2	0.0	113.4
Energy	7	115.2	105.7	101.4	192.2	-0.5	134.3
Industrial	7	1.3	1.3	1.2	3.6	-0.0	3.5
Technology	2	1.2	1.7	1.9	2.7	0.7	1.0



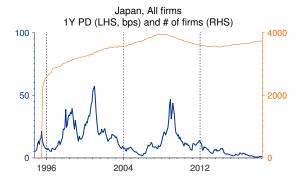
Israel		2018	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	115	6.7	24.4	5.4	17.5	-0.3	10.9
Basic Materials	13	10.7	44.0	7.2	61.8	-0.2	21.3
Communications	37	12.9	321.4	13.8	410.0	-0.5	98.4
Consumer Cyclical	46	24.0	57.3	23.4	48.4	-1.5	44.0
Consumer Non-cyclical	94	17.5	47.6	13.3	36.5	-0.3	34.2
Diversified	8	10.5	21.0	10.7	22.0	1.1	2.1
Energy	31	23.3	38.1	19.8	32.4	-2.2	23.5
Industrial	84	12.8	81.4	12.0	118.0	-0.0	46.6
Technology	38	8.2	148.3	8.8	36.4	-0.8	124.4
Utilities	1	2.1	_	32.0	-	29.9	_



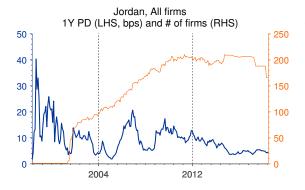
Italy		201	8Q1	201	2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	59	8.3	18.4	12.6	21.9	2.0	12.7
Basic Materials	3	6.6	7.8	6.8	13.4	0.2	5.7
Communications	40	20.8	32.5	18.2	35.0	0.1	17.5
Consumer Cyclical	54	11.6	26.2	10.5	24.8	-0.4	11.0
Consumer Non-cyclical	39	7.5	28.5	6.9	27.0	-0.0	8.6
Diversified	2	33.7	19.3	33.5	23.4	-0.2	4.1
Energy	19	23.0	53.3	14.4	90.9	1.2	58.4
Industrial	47	10.8	61.5	10.6	53.1	-0.0	33.1
Technology	18	8.8	17.8	7.7	26.3	0.0	17.2
Utilities	12	4.1	16.6	4.6	4.2	0.6	16.9



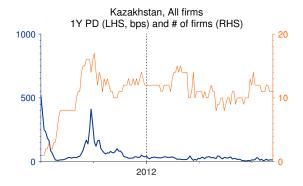
Jamaica		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	17	17.2	24.6	29.4	23.1	9.1	27.5
Basic Materials	2	35.1	5.6	63.8	36.5	28.8	42.1
Communications	2	112.6	60.3	125.9	56.4	13.3	3.8
Consumer Cyclical	9	15.7	25.1	10.7	25.2	-1.3	13.3
Consumer Non-cyclical	16	35.3	40.9	40.9	38.3	5.0	23.4
Diversified	3	74.5	201.2	20.9	24.6	-11.2	211.4
Industrial	5	38.3	30.7	40.7	53.8	2.4	28.4
Technology	1	23.8	-	40.7	_	16.9	_



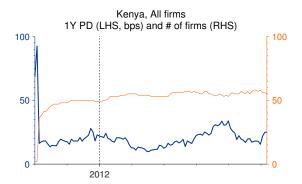
Japan	Japan		2018Q1		2018Q2		-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	356	2.6	16.8	2.9	15.7	0.0	6.9
Basic Materials	235	1.7	5.6	1.9	6.4	0.2	3.7
Communications	296	0.9	7.3	1.0	9.3	0.1	4.2
Consumer Cyclical	862	1.2	5.5	1.4	6.8	0.1	3.1
Consumer Non-cyclical	642	0.4	4.3	0.6	4.9	0.0	2.8
Diversified	2	19.4	26.0	19.6	23.9	0.2	2.1
Energy	18	3.3	9.6	4.0	218.8	0.0	216.9
Industrial	961	1.4	5.7	1.9	8.8	0.3	5.1
Technology	328	0.8	7.2	1.0	9.8	0.1	6.9
Utilities	21	2.0	7.6	2.0	5.6	-0.2	2.3



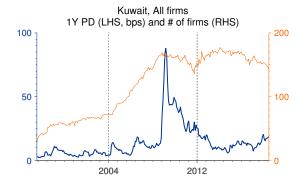
Jordan		2018	3Q1	201	2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	85	1.8	5.8	1.7	4.8	-0.1	2.2
Basic Materials	14	17.3	26.4	20.7	34.5	0.5	17.7
Communications	2	84.5	111.9	90.9	115.1	6.4	3.2
Consumer Cyclical	12	11.0	73.2	8.0	93.8	0.0	28.9
Consumer Non-cyclical	25	10.2	44.0	14.4	23.5	0.1	33.8
Diversified	2	260.8	366.4	112.4	146.3	-148.4	220.2
Energy	1	33.8	-	47.3	-	13.5	-
Industrial	20	19.7	65.2	20.1	51.0	1.3	27.8
Technology	1	57.5	-	102.2	-	44.7	-
Utilities	2	45.6	33.5	71.7	50.3	26.0	16.8



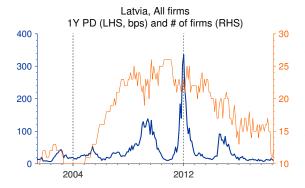
Kazakhstan		2018	8Q1	201	8Q2	Q2-	Q2-Q1		
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.		
Financials	5	41.4	19.1	30.5	15.4	2.7	22.6		
Basic Materials	1	29.1	_	25.2	-	-3.9	_		
Communications	2	7.8	3.8	3.8	1.7	-4.0	2.1		
Energy	2	1.3	0.2	1.7	0.5	0.5	0.3		
Utilities	1	1.2	_	1.0	_	-0.1	_		



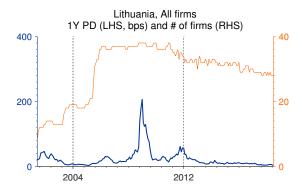
Kenya		2018	3Q1	2018	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	21	8.7	30.9	10.5	48.9	2.4	18.9
Basic Materials	3	15.3	161.0	30.2	839.7	20.3	678.8
Communications	5	33.2	33.0	46.2	48.7	2.1	17.3
Consumer Cyclical	6	119.0	75.6	189.6	105.2	54.3	49.0
Consumer Non-cyclical	9	16.1	378.9	16.5	487.2	1.8	108.3
Diversified	3	15.7	47.3	105.7	61.4	16.4	50.1
Energy	2	16.9	13.6	27.0	32.3	10.1	18.7
Industrial	5	59.3	94.3	61.5	137.2	13.1	43.9
Utilities	1	287.9	-	401.3	-	113.5	-



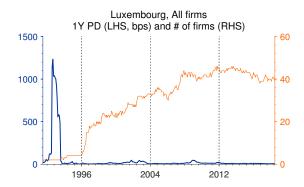
Kuwait		201	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	86	13.6	27.0	15.9	53.8	0.3	33.0
Basic Materials	3	2.4	9.6	6.0	8.3	-0.4	2.7
Communications	6	33.8	116.4	35.5	164.0	9.3	49.4
Consumer Cyclical	11	61.6	78.1	53.9	67.0	-1.0	34.4
Consumer Non-cyclical	7	2.6	71.1	23.3	102.2	4.5	90.2
Diversified	4	30.4	27.8	31.4	148.6	3.7	126.1
Energy	6	105.1	63.5	76.8	61.2	-17.3	58.7
Industrial	19	48.2	80.2	50.2	83.7	1.3	48.3
Technology	2	51.9	29.0	90.4	85.6	38.4	56.6



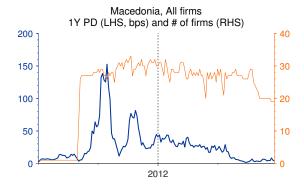
Latvia		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Communications	1	2.3	-	2.5	-	0.2	-
Consumer Cyclical	2	67.6	34.5	79.7	13.5	12.0	21.0
Consumer Non-cyclical	3	7.4	7.3	6.8	5.1	-0.6	2.3
Industrial	3	9.5	49.7	34.4	125.2	24.8	75.8
Utilities	1	9.2	-	4.0	-	-5.2	-



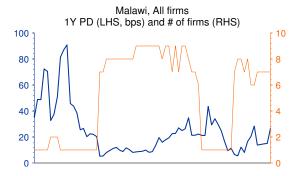
Lithuania		2018	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	6	0.6	2.8	0.6	6.1	0.1	3.4
Basic Materials	1	2.9	-	2.2	-	-0.7	-
Communications	1	0.0	-	0.0	-	0.0	-
Consumer Cyclical	5	59.6	48.2	50.1	110.2	-0.0	92.3
Consumer Non-cyclical	7	9.0	24.5	6.2	21.5	-1.4	4.9
Energy	1	0.9	-	1.3	-	0.3	-
Industrial	2	32.8	15.1	40.7	17.6	7.8	2.5
Utilities	5	1.1	21.6	1.4	9.5	-0.3	12.7



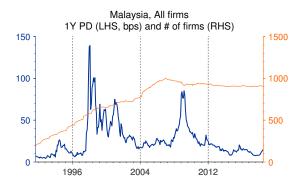
Luxembourg		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	3.3	65.7	3.3	25.3	-0.0	41.5
Basic Materials	6	10.6	7.0	9.1	12.7	-1.9	9.2
Communications	4	27.7	208.4	17.3	14.0	-10.4	196.5
Consumer Cyclical	1	2.6	-	1.1	-	-1.5	-
Consumer Non-cyclical	4	5.8	11.0	4.6	10.7	-1.0	0.7
Industrial	8	5.0	161.4	4.8	13.9	-1.7	150.3
Technology	2	2.6	2.7	3.2	3.6	0.6	0.9
Utilities	1	63.1	-	65.9	-	2.9	-



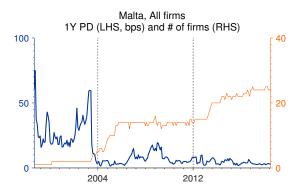
Macedonia		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	5.4	7.7	8.7	8.5	3.0	1.2
Basic Materials	2	18.0	19.9	21.4	28.7	3.5	8.8
Communications	1	1.0	-	1.7	-	0.6	-
Consumer Cyclical	2	2.7	3.7	1.3	1.8	-1.4	1.9
Consumer Non-cyclical	5	2.0	5.1	3.4	6.1	0.7	1.2
Energy	1	12.7	-	14.4	-	1.6	-
Industrial	3	4.5	21.0	7.2	4.1	0.2	19.1



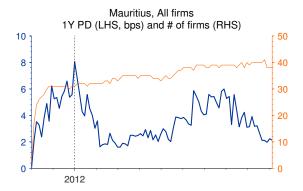
Malawi		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	18.4	80.8	38.6	87.7	0.4	68.9
Communications	1	8.0	-	12.4	-	4.4	-
Consumer Non-cyclical	1	14.3	-	15.8	_	1.5	-



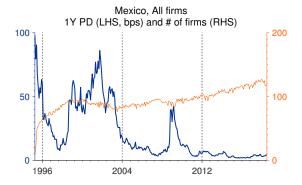
Malaysia		201	8Q1	2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	136	3.4	28.8	5.7	24.5	0.9	8.4
Basic Materials	64	22.4	671.2	34.5	673.1	1.7	40.6
Communications	37	17.7	67.5	19.1	103.8	4.2	80.8
Consumer Cyclical	120	14.9	108.4	19.4	154.0	1.4	60.7
Consumer Non-cyclical	146	4.4	110.1	5.7	95.7	0.2	53.0
Diversified	22	16.7	551.0	21.2	565.3	1.5	28.3
Energy	32	71.0	235.6	89.3	306.1	15.3	115.5
Industrial	277	19.3	140.5	25.8	155.2	3.0	50.9
Technology	63	18.3	147.9	21.8	70.2	2.8	154.7
Utilities	6	15.3	18.3	30.1	26.1	2.6	16.4



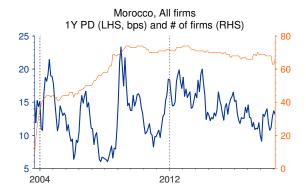
Malta		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	11	2.1	4.3	3.2	2.7	-0.0	2.4
Communications	4	13.7	11.0	16.4	9.2	-0.0	4.7
Consumer Cyclical	5	3.3	2.6	2.9	8.8	1.8	6.6
Consumer Non-cyclical	2	0.2	0.3	0.3	0.4	0.1	0.1
Energy	1	19.0	-	34.6	-	15.6	-
Industrial	1	0.0	-	0.0	-	-0.0	_



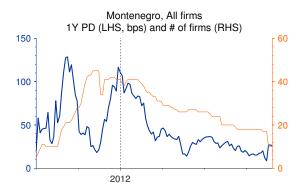
Mauritius		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	15	1.5	8.0	1.3	8.9	-0.0	4.4
Basic Materials	2	10.7	12.1	5.3	4.6	-5.4	7.5
Consumer Cyclical	7	1.9	4.4	2.9	4.7	0.3	1.3
Consumer Non-cyclical	6	4.4	17.3	3.3	35.2	0.2	18.4
Diversified	3	6.1	3.8	1.5	4.1	-0.0	3.6
Energy	1	0.0	_	0.0	_	-0.0	-
Industrial	4	14.9	16.7	43.9	117.4	26.4	105.6



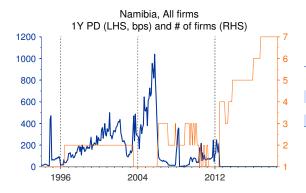
Mexico		2018	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	32	1.1	4.8	1.3	6.3	0.1	2.8
Basic Materials	10	7.0	17.5	7.1	23.6	0.1	7.1
Communications	7	11.6	36.6	7.5	35.9	-0.5	5.8
Consumer Cyclical	24	7.9	59.5	3.7	73.8	-0.1	35.4
Consumer Non-cyclical	16	3.8	8.5	3.0	11.6	0.4	3.5
Diversified	4	15.8	59.1	15.0	56.1	-0.9	3.0
Industrial	21	4.4	380.8	6.3	303.2	-0.0	104.3
Utilities	2	3.4	3.8	5.3	5.5	1.9	1.7



Morocco		2018	3Q1	201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	18	10.7	9.7	12.1	7.0	1.0	9.6
Basic Materials	9	11.5	33.5	16.1	48.3	0.5	15.7
Communications	1	0.0	-	0.0	-	0.0	-
Consumer Cyclical	6	38.9	33.4	34.0	19.4	-5.3	16.3
Consumer Non-cyclical	10	7.5	10.1	6.7	10.1	0.3	4.2
Diversified	1	5.2	-	119.9	-	114.7	-
Energy	1	0.8	-	10.1	-	9.3	-
Industrial	11	55.1	113.3	51.7	193.7	0.1	84.9
Technology	5	15.5	71.4	15.8	176.2	-0.4	105.0
Utilities	3	11.3	40.7	13.9	33.5	0.6	7.5



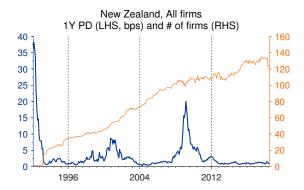
Montenegro		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Communications	1	8.2	-	27.3	-	19.2	-
Consumer Cyclical	3	5.3	10.0	35.1	26.9	29.8	18.4
Consumer Non-cyclical	3	10.0	7.2	35.8	14.2	27.2	8.7
Energy	1	7.5	-	13.4	-	5.9	-
Utilities	2	9.5	5.0	23.7	0.4	14.2	5.4



Namibia		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	0.0	0.5	0.0	0.9	0.0	0.4
Consumer Non-cyclical	3	0.0	4.7	0.9	6.0	0.9	1.4
Diversified	1	19.2	-	11.4	-	-7.8	-



Netherlands	Netherlands		2018Q1		2018Q2		-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	26	4.1	13.1	4.1	17.3	0.0	9.3
Basic Materials	6	1.2	18.5	1.3	24.9	-0.1	12.2
Communications	9	14.3	66.1	16.3	167.3	2.0	101.7
Consumer Cyclical	12	12.5	43.9	11.0	32.2	-3.6	13.9
Consumer Non-cyclical	30	3.1	40.3	2.4	47.4	-0.0	17.4
Energy	9	6.4	25.7	7.2	30.6	-0.6	13.3
Industrial	20	9.0	59.5	8.2	59.5	-1.8	14.0
Technology	15	4.5	81.9	4.9	39.9	-1.1	43.5



New Zealand		2018	8Q1	2018	8Q2	Q2-	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	18	0.1	29.0	0.1	12.8	-0.0	21.1	
Basic Materials	1	1.4	-	1.5	-	0.0	-	
Communications	8	3.1	48.4	2.4	18.9	-0.6	32.0	
Consumer Cyclical	18	1.0	7.5	0.9	21.5	-0.0	15.1	
Consumer Non-cyclical	39	0.9	8.6	0.6	12.5	0.0	6.4	
Diversified	1	15.6	-	27.1	-	11.4	-	
Energy	6	0.4	8.7	0.4	13.0	-0.0	4.3	
Industrial	14	4.5	40.9	4.5	88.1	-0.0	51.1	
Technology	12	9.4	27.0	7.1	23.1	0.1	16.8	
Utilities	6	0.1	0.1	0.1	0.1	-0.0	0.0	



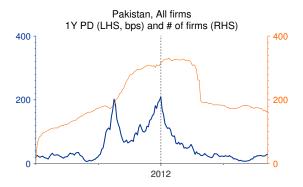
Nigeria		2018Q1		2018	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	49	57.6	86.4	57.1	124.7	7.6	51.4
Basic Materials	9	21.8	260.8	13.5	222.8	-3.7	69.8
Communications	3	41.3	23.1	28.9	16.7	-12.3	6.5
Consumer Cyclical	14	74.6	191.3	83.5	215.4	-1.2	53.4
Consumer Non-cyclical	30	30.0	192.7	32.1	152.6	2.0	60.6
Energy	9	48.0	161.1	96.0	143.4	5.7	42.0
Industrial	18	39.1	210.2	40.4	170.4	0.8	55.9
Technology	2	96.1	68.0	81.2	86.2	-14.9	18.2
Utilities	1	79.2	-	118.2	-	39.0	-



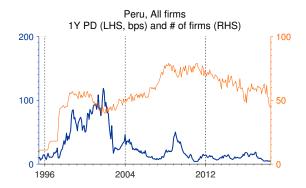
Norway		201	2018Q1		8Q2	Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	49	7.7	11.1	5.6	11.3	-0.2	5.7
Basic Materials	5	6.9	5.7	4.7	21.3	-1.1	17.3
Communications	8	26.5	18.4	14.3	19.8	-1.8	10.9
Consumer Cyclical	7	14.6	53.9	12.0	59.3	-2.9	23.1
Consumer Non-cyclical	27	13.1	30.1	8.3	23.4	-1.4	19.5
Diversified	1	13.8	-	35.6	-	21.7	-
Energy	27	36.1	91.9	20.4	69.4	-10.0	61.9
Industrial	47	33.5	174.2	20.5	194.9	-2.5	43.3
Technology	14	29.6	52.9	21.1	54.2	-1.6	23.6
Utilities	1	9.0	-	11.2	-	2.2	-



Oman		2018Q1		2018Q2		Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	24	9.6	9.0	10.0	9.1	0.2	2.9
Basic Materials	3	4.3	7.3	8.8	8.1	2.1	2.2
Communications	2	39.4	49.3	85.8	114.0	46.3	64.7
Consumer Non-cyclical	4	13.1	9.6	9.3	11.2	-1.8	3.6
Diversified	1	0.0	-	0.0	-	0.0	-
Energy	4	23.0	119.7	23.7	165.6	4.5	46.7
Industrial	11	3.1	35.1	10.8	14.4	1.8	31.1
Utilities	9	11.4	20.4	14.5	10.8	3.1	21.2



Pakistan		201	2018Q1		2018Q2		-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	35	42.0	51.7	36.5	51.9	-0.1	13.0
Basic Materials	20	20.7	165.4	28.7	231.4	3.2	67.5
Communications	5	82.7	275.1	111.8	181.1	1.1	100.3
Consumer Cyclical	26	34.2	157.6	36.0	239.6	6.9	93.2
Consumer Non-cyclical	29	5.6	34.9	9.1	43.8	0.4	15.8
Energy	10	33.4	42.3	33.9	66.4	3.1	30.3
Industrial	24	15.2	16.1	27.0	23.8	7.8	11.7
Technology	2	8.6	11.7	3.4	3.2	-5.2	8.6
Utilities	8	28.9	60.9	41.8	58.8	11.5	56.8



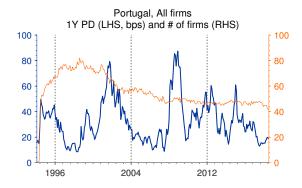
Peru		201	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	1.8	2.2	2.4	2.6	0.5	0.9
Basic Materials	15	5.5	16.0	6.0	43.5	0.4	28.9
Communications	1	21.0	-	33.4	-	12.4	-
Consumer Cyclical	1	0.5	-	6.8	-	6.2	-
Consumer Non-cyclical	6	7.0	76.8	10.3	87.5	3.3	11.5
Diversified	1	96.6	-	150.9	-	54.3	-
Energy	2	36.9	50.8	72.6	101.0	35.7	50.2
Industrial	3	6.8	8.1	5.7	1.2	-1.1	9.1
Utilities	4	2.5	3.4	2.8	2.8	-0.0	0.7



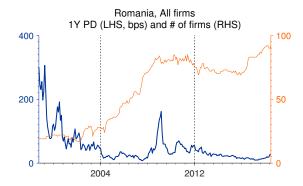
Philippines		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	80	4.5	6.4	5.8	10.2	1.3	6.3
Basic Materials	25	6.7	38.2	7.4	51.2	0.0	20.8
Communications	15	5.0	21.4	8.5	39.6	2.5	18.8
Consumer Cyclical	32	8.5	39.4	11.9	49.9	0.8	26.5
Consumer Non-cyclical	32	13.1	46.5	14.1	57.4	2.8	24.9
Diversified	14	5.6	54.9	11.6	52.1	0.6	18.0
Energy	13	5.6	20.0	6.7	23.8	1.3	10.1
Industrial	18	13.0	50.2	18.3	55.7	2.7	16.0
Technology	4	46.2	30.1	48.8	40.9	6.7	13.7
Utilities	14	11.7	16.1	20.3	20.2	4.2	9.5



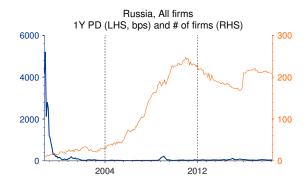
Poland		2018Q1		2018Q2		Q2	-Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	92	13.0	35.5	18.3	49.7	4.7	35.5
Basic Materials	24	15.9	67.5	24.1	31.5	4.9	46.0
Communications	37	15.5	440.4	22.6	263.3	2.9	229.3
Consumer Cyclical	56	18.9	325.7	30.9	203.2	8.4	255.0
Consumer Non-cyclical	63	24.9	208.3	32.3	140.4	5.5	121.2
Energy	14	30.4	58.0	34.5	81.4	2.3	51.1
Industrial	113	31.9	151.9	41.1	303.5	6.3	208.5
Technology	45	15.3	281.7	23.6	273.0	2.4	140.2
Utilities	9	40.9	32.3	47.2	62.9	3.6	34.3



Portugal		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	14.8	12.3	11.2	7.4	-3.6	5.0
Basic Materials	6	3.1	24.5	1.5	23.1	-1.1	6.4
Communications	6	9.7	50.7	8.7	50.5	-0.4	10.0
Consumer Cyclical	6	74.1	57.8	94.0	57.5	7.0	25.4
Consumer Non-cyclical	7	24.8	84.2	21.8	138.8	0.5	55.5
Diversified	2	24.7	26.0	20.3	21.5	-4.4	4.5
Energy	1	0.6	-	0.7	-	0.0	-
Industrial	5	19.9	20.4	31.2	30.2	11.3	17.4
Technology	3	50.7	142.8	47.5	120.0	-3.2	22.9
Utilities	2	6.1	2.5	5.6	2.4	-0.5	0.0



Romania		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	4.4	12.3	7.1	22.5	2.8	12.5
Basic Materials	12	32.5	55.8	51.0	80.6	15.7	43.0
Communications	2	3.8	1.8	6.0	3.1	2.2	1.3
Consumer Cyclical	13	9.4	33.4	18.2	38.5	7.0	32.2
Consumer Non-cyclical	13	11.7	62.9	14.3	58.5	0.8	18.6
Energy	8	12.6	75.9	13.3	155.6	0.6	114.4
Industrial	24	28.1	65.0	36.3	110.9	11.8	48.3
Utilities	4	1.5	5.6	4.4	6.4	3.0	1.7



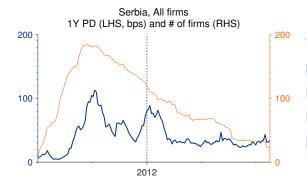
Russia		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	23	23.4	16.4	27.6	19.2	1.4	15.0
Basic Materials	33	19.1	76.3	20.6	58.0	-0.4	22.9
Communications	11	10.6	43.8	18.2	67.8	0.0	30.7
Consumer Cyclical	17	56.1	61.0	58.8	81.8	0.5	92.4
Consumer Non-cyclical	22	41.4	43.0	36.0	44.8	-4.0	21.2
Diversified	2	138.6	106.5	105.2	62.0	-33.3	44.5
Energy	20	20.8	36.5	13.7	36.7	-0.7	14.4
Industrial	22	34.4	238.6	36.1	97.6	-2.3	147.9
Technology	3	18.3	4.0	23.6	10.9	4.2	8.3
Utilities	54	70.2	94.9	83.4	96.5	4.1	48.1



Rwanda		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	1.2	1.6	1.4	2.0	0.3	0.4
Consumer Non-cyclical	1	12.6	-	8.8	-	-3.8	-



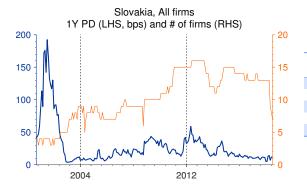
Saudi Arabia		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	59	0.0	0.3	0.0	0.3	-0.0	0.1
Basic Materials	19	5.4	32.1	5.5	11.4	0.0	22.7
Communications	6	56.8	77.6	30.9	85.3	-2.7	22.9
Consumer Cyclical	23	4.9	14.4	7.5	9.7	-0.0	6.1
Consumer Non-cyclical	26	1.8	37.7	2.0	6.7	-0.0	33.4
Diversified	4	12.1	7.0	15.3	4.7	2.7	7.3
Energy	2	15.8	2.4	11.6	4.0	-4.2	6.3
Industrial	35	2.1	11.3	2.2	13.6	0.0	3.3
Technology	1	8.5	-	16.2	-	7.7	-
Utilities	1	95.8	-	86.9	-	-8.9	-



Serbia		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	4	26.8	14.2	19.4	7.7	-4.3	11.3
Basic Materials	3	0.2	8.7	8.0	18.5	0.5	9.9
Consumer Cyclical	2	23.4	30.9	27.4	37.3	4.0	6.3
Consumer Non-cyclical	3	133.9	80.3	194.2	109.8	41.9	31.9
Diversified	2	241.0	249.3	144.8	123.8	-96.1	125.5
Energy	1	3.4	-	3.4	-	0.1	-
Industrial	9	48.3	49.4	48.2	73.3	-12.4	38.2



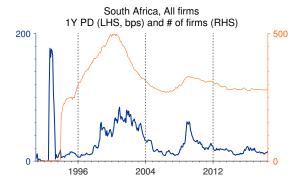
Singapore		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	124	1.5	20.9	2.0	27.1	0.1	15.4
Basic Materials	22	11.6	70.0	15.3	254.6	8.0	215.2
Communications	26	15.7	62.5	18.5	69.7	0.5	42.1
Consumer Cyclical	80	12.3	59.2	10.7	84.0	0.1	59.9
Consumer Non-cyclical	69	3.5	44.6	5.6	49.7	0.0	18.7
Diversified	8	1.7	23.4	2.7	23.9	0.0	8.4
Energy	28	41.8	131.9	34.7	267.1	4.4	197.1
Industrial	166	19.3	55.9	25.5	135.3	3.0	101.7
Technology	25	4.5	53.1	9.2	72.1	0.9	26.7
Utilities	3	2.6	221.5	3.7	820.9	1.2	599.4



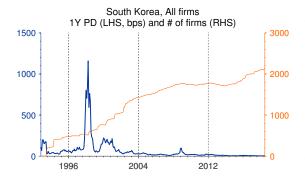
Slovakia		2018Q1		2018	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	13.5	7.0	5.6	1.6	-7.9	8.6
Basic Materials	1	122.1	_	13.5	-	-108.5	-
Consumer Cyclical	1	0.7	-	0.4	-	-0.3	-
Consumer Non-cyclical	2	11.3	7.9	12.5	1.0	1.3	6.9
Energy	1	25.8	-	22.4	-	-3.4	-



Slovenia		2018	8Q1	1 2018Q2			Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	5	2.5	17.6	2.7	8.0	0.3	18.4	
Basic Materials	2	8.0	10.1	8.1	10.9	0.0	8.0	
Communications	1	5.2	-	1.0	-	-4.2	-	
Consumer Cyclical	5	24.5	51.8	25.5	62.6	1.0	11.0	
Consumer Non-cyclical	7	17.4	89.8	12.4	40.8	-1.5	66.7	
Diversified	1	113.6	-	18.5	-	-95.1	-	
Energy	1	3.3	-	2.5	-	-0.8	-	
Industrial	3	26.9	22.3	28.1	22.4	2.7	1.2	
Technology	1	19.2	-	11.1	-	-8.1	-	



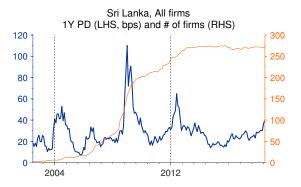
South Africa		201	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	85	4.4	25.8	8.1	28.8	1.0	19.1
Basic Materials	33	28.7	153.4	31.9	237.4	2.7	100.0
Communications	13	17.4	50.6	24.7	55.5	4.0	26.6
Consumer Cyclical	34	10.4	313.7	19.1	432.8	1.6	122.7
Consumer Non-cyclical	42	12.1	133.6	14.2	332.4	1.3	270.3
Diversified	10	11.4	31.3	23.3	27.0	0.1	21.2
Energy	7	18.1	116.4	17.6	92.7	-1.1	25.5
Industrial	41	37.1	218.3	41.4	584.9	6.5	398.4
Technology	11	23.9	76.5	26.1	76.9	2.2	43.3



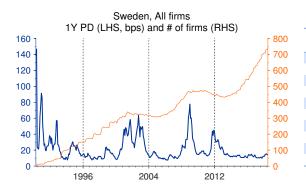
South Korea		2018	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	88	14.3	23.3	21.2	37.4	6.1	21.1
Basic Materials	188	2.6	18.7	5.6	32.0	1.8	15.2
Communications	198	2.7	12.0	3.3	28.1	8.0	22.4
Consumer Cyclical	329	5.2	17.2	8.6	43.9	1.8	34.4
Consumer Non-cyclical	378	1.6	28.1	3.3	120.7	0.9	95.9
Diversified	30	0.0	5.9	0.0	6.5	0.0	3.3
Energy	17	3.5	18.8	7.8	39.2	4.7	20.6
Industrial	567	4.8	22.6	9.4	41.8	2.8	33.7
Technology	277	2.8	21.5	4.6	18.8	1.0	17.5
Utilities	17	8.8	25.8	9.4	22.7	2.4	7.9



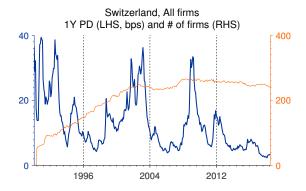
Spain		2018	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	34	2.8	7.6	1.9	5.9	-0.2	3.3
Basic Materials	9	4.8	53.7	4.0	60.7	-0.0	10.6
Communications	17	15.4	22.7	13.1	19.7	-0.1	20.2
Consumer Cyclical	18	4.7	35.5	5.8	45.7	-0.1	18.2
Consumer Non-cyclical	35	7.9	42.9	5.8	36.7	-0.4	13.2
Energy	5	3.3	49.8	8.6	51.4	-0.3	10.5
Industrial	30	10.0	123.9	7.0	98.8	0.0	36.0
Technology	7	7.8	14.8	9.4	14.5	0.4	1.2
Utilities	7	2.5	1.8	1.1	0.8	-1.3	1.4



Sri Lanka		201	2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	89	45.0	43.9	61.3	60.3	7.1	25.3	
Basic Materials	13	41.6	35.7	50.5	40.5	2.1	17.3	
Communications	4	8.6	21.0	6.4	25.0	-1.1	4.4	
Consumer Cyclical	62	28.4	104.2	29.7	116.0	0.2	28.0	
Consumer Non-cyclical	57	25.2	75.8	31.4	79.9	0.5	38.1	
Diversified	11	26.4	98.6	40.6	124.1	11.5	32.8	
Energy	3	11.6	7.2	9.9	8.5	0.3	2.8	
Industrial	24	27.3	181.2	38.1	283.9	10.2	113.0	
Technology	2	18.6	5.7	15.0	8.1	-3.7	2.4	
Utilities	5	14.8	15.6	27.1	57.6	15.5	45.9	



Sweden		2018	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	98	4.2	11.0	3.2	16.0	-0.1	10.5
Basic Materials	27	23.2	62.1	19.8	78.2	0.6	39.7
Communications	68	35.1	130.6	36.1	261.2	-1.4	200.5
Consumer Cyclical	85	17.9	37.6	20.5	62.0	0.2	40.0
Consumer Non-cyclical	204	14.6	56.6	14.8	60.6	0.0	40.6
Diversified	4	9.2	52.7	19.4	27.0	-0.1	33.6
Energy	21	36.9	73.1	31.2	76.5	0.3	50.5
Industrial	140	15.8	99.1	18.3	111.3	-0.0	77.7
Technology	72	19.0	140.9	20.9	467.0	0.5	408.6
Utilities	2	5.0	4.9	4.4	5.6	-0.6	0.7



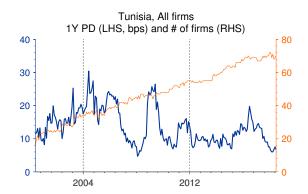
Switzerland		2018Q1		2018Q2		Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	68	1.5	5.9	1.9	11.3	0.1	7.2
Basic Materials	13	3.1	30.0	4.4	172.3	-0.0	144.7
Communications	11	5.2	14.5	5.5	31.1	0.4	17.4
Consumer Cyclical	19	7.2	79.7	7.5	65.4	0.5	15.5
Consumer Non-cyclical	46	3.3	236.6	3.1	378.1	-0.1	151.5
Diversified	3	3.4	22.5	2.2	23.1	0.2	0.9
Energy	4	159.6	238.1	117.4	95.6	-59.4	179.6
Industrial	60	4.1	56.0	4.8	50.1	-0.0	8.6
Technology	10	7.4	46.8	5.4	32.5	-0.5	16.4
Utilities	5	3.3	23.0	2.9	24.3	0.0	1.5



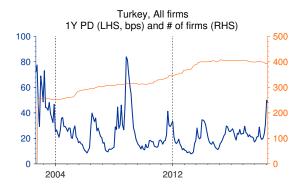
Taiwan		2018	2018Q1		2018Q2		·Q1
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	84	0.3	2.7	0.3	2.9	-0.0	1.1
Basic Materials	77	0.2	3.1	0.2	3.2	0.0	1.2
Communications	46	0.5	6.3	0.4	5.8	-0.0	1.4
Consumer Cyclical	156	0.3	6.2	0.5	7.1	0.0	3.6
Consumer Non-cyclical	60	0.0	1.1	0.0	1.4	0.0	0.5
Diversified	1	0.0	-	0.0	-	-0.0	-
Energy	10	2.2	3.3	3.7	5.4	0.2	2.4
Industrial	310	0.8	13.9	0.7	11.3	0.0	3.7
Technology	151	0.7	4.3	0.7	4.0	0.0	2.1
Utilities	6	0.0	0.0	0.0	0.0	0.0	0.0



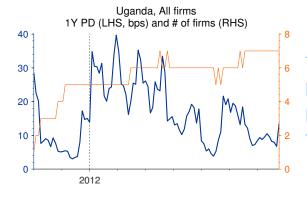
Thailand		201	8Q1	201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	137	0.8	5.3	1.1	7.3	0.1	2.8
Basic Materials	58	6.0	85.9	10.2	100.8	1.4	21.4
Communications	48	12.3	86.9	20.3	72.0	2.2	32.4
Consumer Cyclical	139	4.5	45.3	5.0	40.6	0.3	29.7
Consumer Non-cyclical	107	1.9	48.4	2.7	57.8	0.2	14.4
Diversified	6	1.1	60.0	2.4	81.9	1.3	22.0
Energy	23	2.3	12.6	5.9	26.7	1.9	14.8
Industrial	145	5.4	53.1	8.6	48.4	0.9	15.5
Technology	13	3.4	178.5	14.1	161.9	0.8	28.2
Utilities	21	1.7	13.8	2.9	19.0	0.3	10.5



Tunisia		2018	8Q1	201	8Q2	Q2-	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	23	6.4	19.1	6.6	23.0	1.2	12.7	
Basic Materials	4	3.1	12.7	4.2	41.1	1.5	28.6	
Communications	4	35.6	27.1	31.3	26.9	-3.8	10.1	
Consumer Cyclical	11	4.1	73.1	5.3	74.9	0.9	2.7	
Consumer Non-cyclical	9	19.0	103.7	15.9	283.9	0.0	184.2	
Diversified	1	2.6	-	3.7	-	1.1	_	
Energy	1	0.3	-	0.3	-	-0.0	-	
Industrial	13	16.8	30.2	10.3	36.3	-0.3	16.6	
Technology	2	74.9	97.3	87.2	120.8	12.3	23.5	



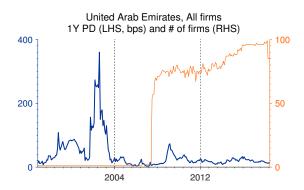
Turkey		2018	8Q1	201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	106	20.4	45.8	46.5	110.6	21.7	69.5
Basic Materials	35	14.7	22.2	25.8	36.8	10.2	19.6
Communications	13	22.5	19.2	48.4	33.9	20.4	19.6
Consumer Cyclical	90	35.7	119.1	63.5	131.2	20.9	102.9
Consumer Non-cyclical	53	27.9	44.9	39.7	60.9	17.2	30.1
Diversified	5	45.3	284.5	84.4	842.0	32.8	558.0
Energy	5	20.6	23.1	29.9	39.1	9.3	21.6
Industrial	72	15.8	51.3	30.5	83.6	10.6	39.9
Technology	5	5.9	37.3	9.5	34.2	3.6	30.8
Utilities	8	41.6	57.0	105.9	72.6	47.8	31.9



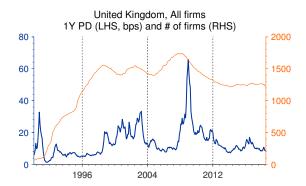
Uganda		2018Q1		201	8Q2	Q2-Q1		
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	4	7.9	4.2	11.4	6.8	3.4	3.1	
Communications	1	0.0	_	0.0	-	0.0	_	
Industrial	1	12.5	-	30.2	-	17.7	-	
Utilities	1	13.8	_	48.7	_	34.9	_	



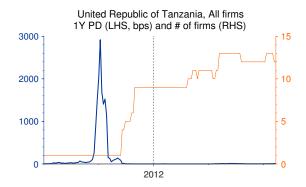
Ukraine		2018	8Q1	201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	1	72.6	-	86.9	-	14.3	-
Consumer Non-cyclical	9	20.1	50.6	33.8	90.4	4.4	44.6
Energy	1	375.5	-	544.4	-	168.9	-
Industrial	3	2.1	40.0	129.1	74.3	61.5	64.4
Utilities	1	11.8	_	58.3	_	46.5	-



United Arab Emirates		2018Q1		201	8Q2	Q2-Q1		
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	45	8.4	14.3	7.8	10.4	-0.8	7.2	
Communications	3	1.0	147.8	0.9	179.9	0.0	32.0	
Consumer Cyclical	4	58.6	147.3	72.9	64.2	2.0	110.7	
Consumer Non-cyclical	10	31.9	48.1	42.6	135.7	1.6	118.2	
Energy	6	11.7	67.8	23.5	15.0	1.5	63.9	
Industrial	16	41.4	47.4	39.2	87.5	2.1	52.7	
Utilities	1	98.4	-	85.3	-	-13.1	-	



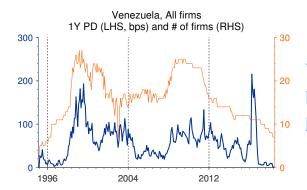
United Kingdom		2018Q1		201	8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	243	1.8	15.8	1.9	13.0	-0.0	10.3
Basic Materials	90	22.1	105.5	22.4	287.6	-0.2	266.6
Communications	103	18.2	122.3	17.5	376.9	-0.9	349.5
Consumer Cyclical	160	12.1	76.4	10.1	56.8	-0.5	49.5
Consumer Non-cyclical	251	11.1	143.5	8.0	91.8	-0.3	112.2
Diversified	5	0.7	85.2	0.7	48.2	-0.0	37.3
Energy	96	32.6	225.6	31.3	475.2	-0.8	444.5
Industrial	169	15.9	96.4	12.1	71.3	-0.8	48.2
Technology	98	10.8	161.9	8.3	93.5	-1.0	133.6
Utilities	13	7.9	785.0	6.6	1476.3	-1.6	693.9



United Republic of Tanzania		2018	2018Q1		3Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	26.2	8.9	36.3	14.1	10.1	5.3
Basic Materials	1	0.0	_	0.0	_	0.0	_
Communications	1	60.0	-	45.2	-	-14.8	-
Consumer Non-cyclical	2	0.5	0.5	1.0	1.3	0.5	0.8
Energy	2	6.7	9.1	6.6	9.2	-0.1	0.2
Industrial	3	4.8	48.8	2.4	63.7	-0.2	14.9



United States		201	8Q1	201	8Q2	Q2-	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	902	0.8	28.7	0.6	31.9	-0.0	29.3	
Basic Materials	127	3.7	97.0	3.4	331.8	-0.0	270.0	
Communications	254	6.2	262.5	4.8	293.1	-0.0	106.4	
Consumer Cyclical	445	3.9	214.2	4.1	298.3	-0.0	143.0	
Consumer Non-cyclical	891	7.6	183.5	8.1	243.2	-0.0	178.2	
Diversified	15	0.0	140.8	0.0	142.9	-0.0	76.1	
Energy	275	12.6	257.7	10.4	453.5	-1.0	313.5	
Industrial	466	1.8	130.4	1.9	139.0	-0.0	93.9	
Technology	321	1.8	131.2	1.6	424.5	-0.0	310.7	
Utilities	78	0.1	12.2	0.1	12.4	-0.0	3.4	



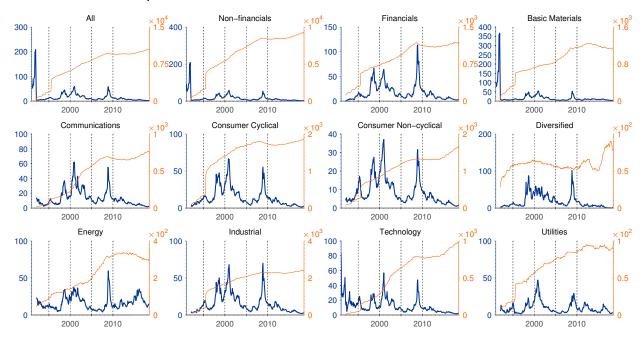
Venezuela		2018	8Q1	201	8Q2	Q2-Q1		
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.	
Financials	5	6.6	36.1	1.0	4.7	-4.1	35.1	
Basic Materials	1	332.7	_	233.5	_	-99.2	_	
Industrial	1	3.8	_	0.4	_	-3.4	_	



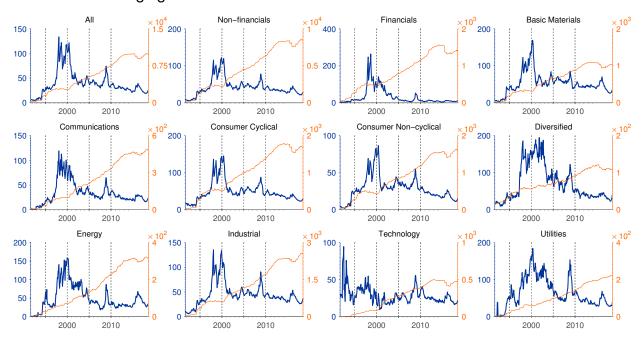
Vietnam		2018	2018Q1		8Q2	Q2-Q1	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	97	8.7	20.9	24.4	29.3	9.8	19.4
Basic Materials	72	30.5	131.6	43.9	138.6	4.9	64.2
Communications	22	55.8	84.7	69.7	105.4	0.8	33.0
Consumer Cyclical	71	42.5	61.1	51.7	73.5	4.0	38.3
Consumer Non-cyclical	101	25.0	85.9	33.1	138.4	3.3	65.3
Diversified	13	23.3	72.5	50.8	62.5	14.3	23.5
Energy	25	62.0	98.3	109.9	112.5	22.3	37.8
Industrial	261	50.5	72.9	59.8	83.3	6.3	38.0
Technology	6	15.2	35.8	31.2	49.0	9.6	16.6
Utilities	21	16.0	37.8	18.3	31.1	2.2	14.4

# B PD by regions

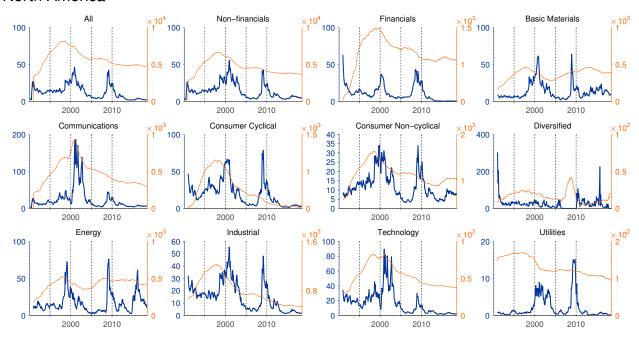
### Asia Pacific - developed economies



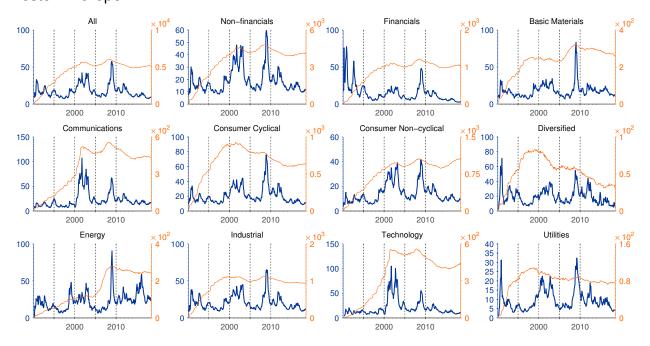
#### Asia Pacific - emerging economies



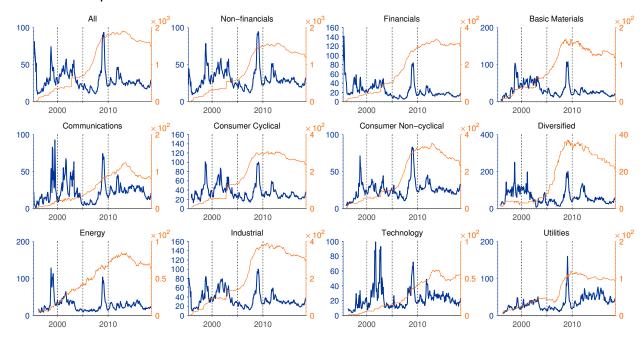
#### North America



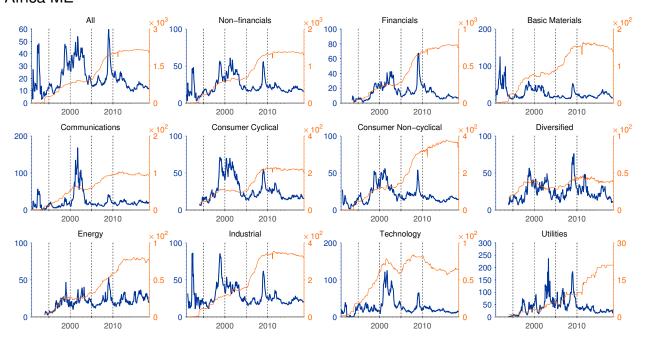
#### Western Europe



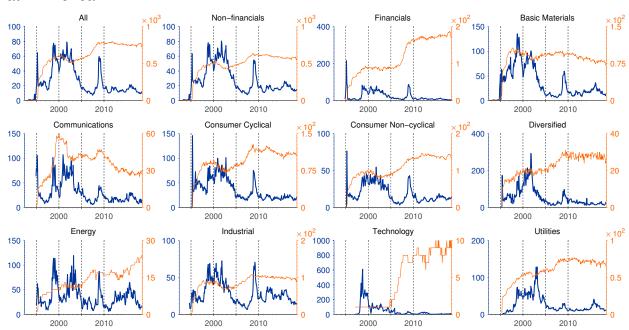
#### Eastern Europe



#### Africa ME

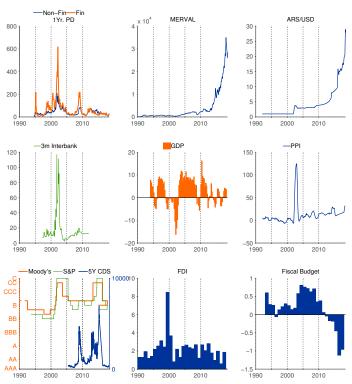


### Latin America

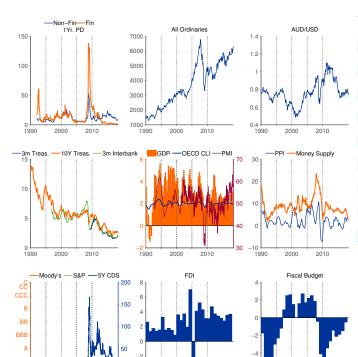


## **C** Macroeconomic Indicators

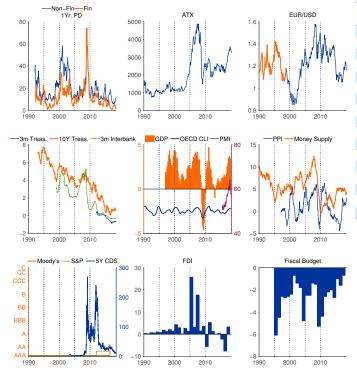
Descriptions of the data contained in this section are provided in Appendix D.



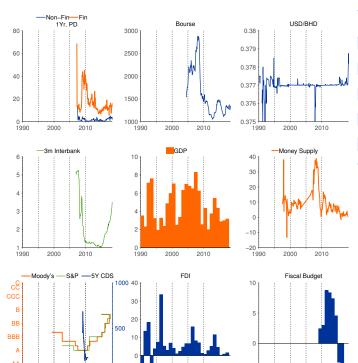
Argentina		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	18.25	19.94	13.85	16.23	28.32
1Yr. PD, Fin.	28.69	16.18	10.58	11.65	20.01
MERVAL	21913	26078	30066	31115	26037
ARS/USD	16.63	17.32	18.62	20.14	28.93
GDP (YoY%)	2.9	4.2	3.9	3.6	-
PPI (YoY%)	-	-	17.9	29.9	32.4*
Sov. Rating, Moody's	B2	B2	B2	B2	B2
Sov. Rating, S&P	B+	B+	B+	B+	B+
5Y CDS (bps)	323.12	283.87	232.25	272.14	450.36
FDI (%GDP)	-	-	1.86	-	-
Fiscal Budget (%GDP)	-	-	-0.96	-	-



Australia		2017			2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	12.05	10.42	7.60	7.91	9.32		
1Yr. PD, Fin.	1.54	1.52	1.07	1.77	1.56		
All Ordinaries	5764	5745	6167	5869	6290		
AUD/USD	0.77	0.78	0.78	0.77	0.74		
3m Treas. Yield (%)	1.63	1.71	1.74	2.03	1.92		
10Y Treas. Yield (%)	2.60	2.84	2.63	2.60	2.63		
3m Interbank (%)	1.71	1.71	1.78	2.02	2.10		
GDP (YoY%)	2.0	2.8	2.4	3.1	-		
OECD CLI	100.28	100.10	99.89	99.67	99.68*		
PMI	55.0	54.2	56.2	63.1	57.4		
PPI (YoY%)	3.7	2.0	3.5	3.3	-		
Money Supply (YoY%)	7.8	6.8	4.5	3.7	2.5*		
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa		
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA		
5Y CDS (bps)	21.93	23.10	17.60*	14.48	-		
FDI (%GDP)	_	_	3.68	_	-		
Fiscal Budget (%GDP)	-	-	-0.50	-	_		



Austria		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	5.58	6.04	7.33	9.20	11.32
1Yr. PD, Fin.	2.31	4.46	5.12	3.85	1.33
ATX	3107	3316	3420	3429	3256
EUR/USD	1.14	1.18	1.20	1.23	1.17
3m Treas. Yield (%)	-0.66	-0.73	-0.70	-0.69	-0.69
10Y Treas. Yield (%)	0.71	0.63	0.58	0.70	0.58
3m Interbank (%)	-0.33	-0.33	-0.33	-0.33	-0.32
GDP (YoY%)	2.9	3.5	3.7	3.4	-
OECD CLI	100.75	101.05	101.27	101.20	101.04*
PMI	60.7	59.4	64.3	58.0	56.6
PPI (YoY%)	1.3	1.8	1.5	1.7	3.1*
Money Supply (YoY%)	5.0	5.2	4.7	3.7	4.4
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
5Y CDS (bps)	20.1	18.5	13.1	12.1	14.0
FDI (%GDP)	-	-	3.30	-	-
Fiscal Budget (%GDP)	-	-	-0.70	-	-



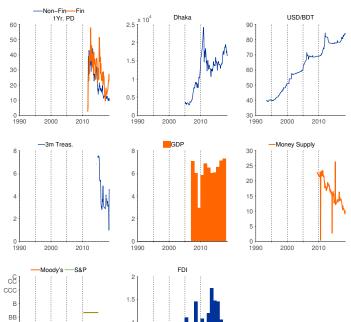
Bahrain		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	3.51	0.88	4.10	3.89	1.75
1Yr. PD, Fin.	5.58	13.91	14.85	10.22	16.21
Bourse	1310	1283	1332	1318	1311
USD/BHD	0.38	0.38	0.38	0.38	0.38
3m Interbank (%)	2.40	2.45	2.73	3.05	3.50
GDP (YoY%)	_	_	3.15	-	_
Money Supply (YoY%)	1.42	1.66	4.15	0.64	0.68*
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	-	_	1.47	-	_

BBB

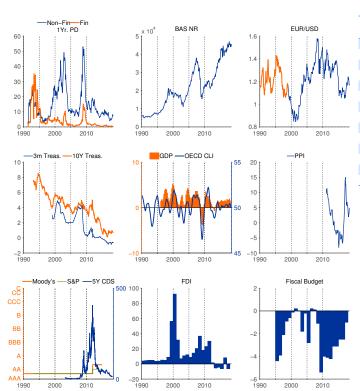
AA AAA 1990

2000

2010



Bangladesh		2017	2018		
•	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	13.00	12.08	11.11	11.03	9.36
1Yr. PD, Fin.	18.03	13.90	16.67	22.89	23.07
Dhaka	17517	18882	19268	17215	16559
USD/BDT	80.64	82.31	82.69	83.22	83.78
3m Treas. Yield (%)	4.09	3.80	3.54	3.25	4.58
GDP (YoY%)	-	-	7.3	-	-
Money Supply (YoY%)	10.9	10.4	10.7	9.3	10.2*
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	-	-	0.86	-	-



Belgium		2017			2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	4.17	4.76	5.57	8.10	7.29		
1Yr. PD, Fin.	0.38	0.55	0.59	0.34	0.29		
BAS NR	43715.0	45780.7	45177.2	44075.4	44656.8		
EUR/USD	1.14	1.18	1.20	1.23	1.17		
3m Treas. Yield (%)	-0.65	-0.64	-0.77	-0.61	-0.61		
10Y Treas. Yield (%)	0.80	0.73	0.64	0.77	0.69		
GDP (YoY%)	1.6	1.6	1.9	1.5	-		
OECD CLI	100.06	100.28	100.45	100.16	99.96*		
PPI (YoY%)	6.2	6.4	4.1	2.7	4.9*		
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3		
Sov. Rating, S&P	AA	AA	AA	AA	AA		
5Y CDS (bps)	19.56	18.38	13.55	14.05	-		
FDI (%GDP)	-	-	-6.31	-	-		
Fiscal Budget (%GDP)	-	-	-1.00	-	-		

ccc

BB BBB

AAA 1990

ccc

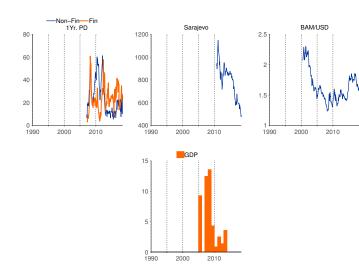
BB BBB

AA AAA 1990

2010

2000

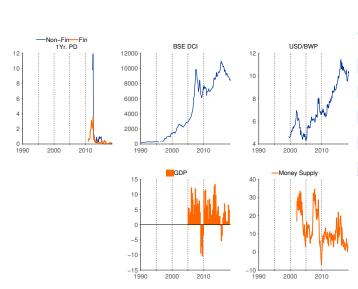
2010



-5 1990

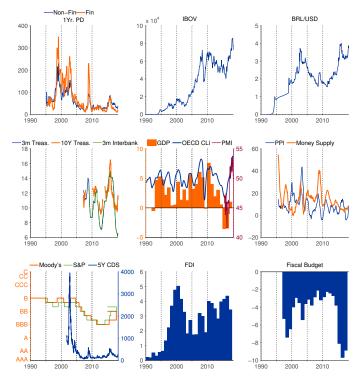
2000

Q2 20.06	Q3 22.83	Q4 7.66	Q1	Q2
20.06	22.83	7.66		
		7.00	11.63	27.25
21.66	14.88*	25.40	27.65	27.08
597	592	545	545	476
1.71	1.65	1.63	1.59	1.69
B3	В3	В3	В3	B3
В	В	В	В	В
_	_	2.39	_	_
	597 1.71 B3	597 592 1.71 1.65 B3 B3	597 592 545 1.71 1.65 1.63 B3 B3 B3 B B	597         592         545         545           1.71         1.65         1.63         1.59           B3         B3         B3         B3           B         B         B         B

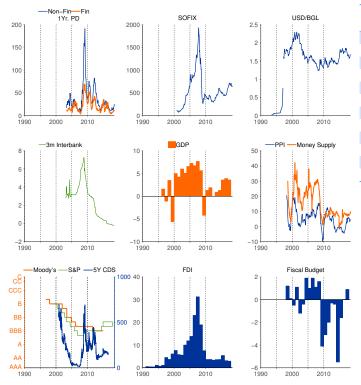


2000

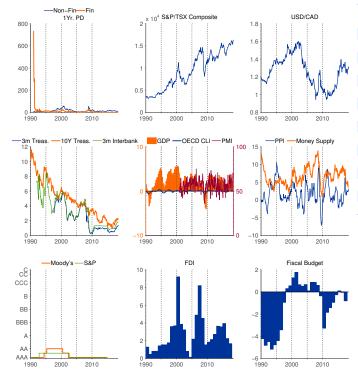
Botswana	2017			2018		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	0.03	0.00	0.00	0.00	0.01	
1Yr. PD, Fin.	0.11	0.11	0.19	0.10	0.09	
BSE DCI	9244	8930	8860	8590	8403	
USD/BWP	10.23	10.30	9.83	9.56	10.39	
GDP (YoY%)	1.0	1.1	6.5	4.8	_	
Money Supply (YoY%)	0.8	3.4	2.7	2.1	3.3*	
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3	
Sov. Rating, S&P	Α	Α	Α	Α	Α	
FDI (%GDP)	_	_	2.30	-	_	



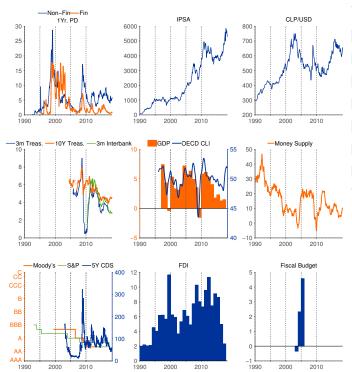
Brazil		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	45.75	32.60	32.17	29.05	37.59
1Yr. PD, Fin.	23.89	15.73	10.26	11.43	19.10
IBOV	62900.0	74293.5	76402.1	85365.6	72762.5
BRL/USD	3.31	3.16	3.31	3.31	3.88
3m Treas. Yield (%)	9.38	7.42	6.76	6.49	6.45
10Y Treas. Yield (%)	10.54	9.73	10.26	9.49	11.68
3m Interbank (%)	9.42	7.53	6.78	6.31	6.52
GDP (YoY%)	-	-	1.0	-	-
OECD CLI	101.02	102.03	103.13	103.76	103.56*
PMI	50.5	50.9	52.4	53.4	49.8
PPI (YoY%)	-3.2	-3.9	-2.5	-1.2	8.7
Money Supply (YoY%)	6.2	6.6	4.8	7.6	6.5*
Sov. Rating, Moody's	Ba2	Ba2	Ba2	Ba2	Ba2
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
5Y CDS (bps)	242.29	195.91	161.97	164.20	269.96
FDI (%GDP)	-	-	3.42	-	-
Fiscal Budget (%GDP)	-	-	-8.86	-	-



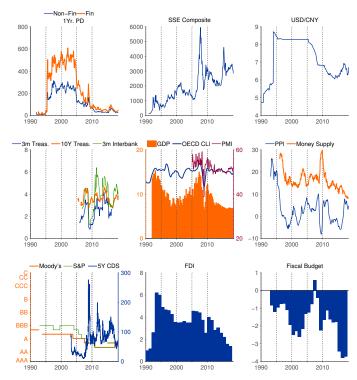
		0047			4.0
Bulgaria		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	10.64	17.66	14.32	14.63	25.47
1Yr. PD, Fin.	6.77	5.21	7.28	11.87	9.21
SOFIX	703	688	677	649	634
USD/BGL	1.71	1.66	1.63	1.59	1.67
3m Interbank (%)	-0.08	-0.08	-0.18	-0.19	-0.23
GDP (YoY%)	_	_	3.6	_	_
PPI (YoY%)	2.7	6.0	5.1	3.0	4.8*
Money Supply (YoY%)	7.0	8.2	7.7	8.3	9.9
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	_	_	2.91	-	_
Fiscal Budget (%GDP)	_	_	0.90	-	_



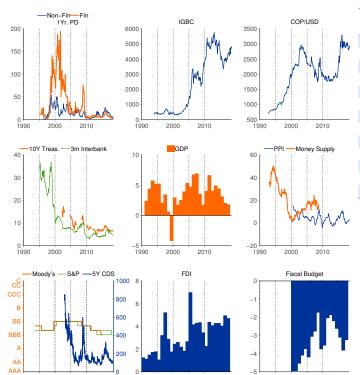
Canada		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	13.83	11.76	8.30	8.88	12.34
1Yr. PD, Fin.	0.47	0.34	0.25	0.42	0.52
S&P/TSX Composite	15182	15635	16209	15367	16278
USD/CAD	1.30	1.25	1.26	1.29	1.31
3m Treas. Yield (%)	0.71	1.00	1.06	1.15	1.26
10Y Treas. Yield (%)	1.76	2.10	2.04	2.09	2.17
3m Interbank (%)	1.07	1.42	1.54	1.73	1.77
GDP (YoY%)	3.8	3.1	3.0	2.3	-
OECD CLI	100.38	100.42	100.34	99.91	99.62*
PMI	63.9	68.6	49.3	64.7	65.1
PPI (YoY%)	3.2	1.4	2.3	2.4	3.1*
Money Supply (YoY%)	6.7	4.6	4.8	4.7	3.5*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	-	-	1.67	-	-
Fiscal Budget (%GDP)	-	_	-0.81	_	-



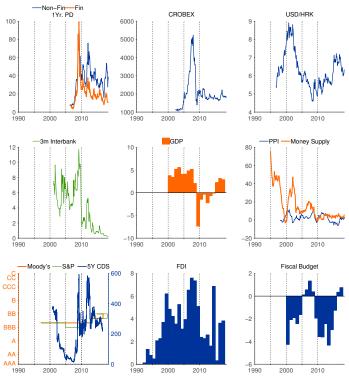
Chile		2017		20	2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	5.00	4.54	5.78	5.47	5.97		
1Yr. PD, Fin.	0.91	0.38	0.55	0.87	1.06		
IPSA	4747.2	5341.9	5564.6	5542.2	5301.3		
CLP/USD	663.8	639.0	615.4	603.9	654.4		
3m Treas. Yield (%)	3.09	3.09*	-	-	-		
10Y Treas. Yield (%)	4.01	4.32	4.62	4.49	4.58		
3m Interbank (%)	2.97	2.78	3.04	2.81	2.83		
GDP (YoY%)	-	-	1.5	-	-		
OECD CLI	99.62	101.09	101.78	102.06	101.84*		
Money Supply (YoY%)	4.79	5.28	4.62	7.41	10.49		
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3		
Sov. Rating, S&P	A+	A+	A+	A+	A+		
5Y CDS (bps)	65.85	58.78	48.90	51.06	60.78		
FDI (%GDP)	-	_	2.32	-	_		



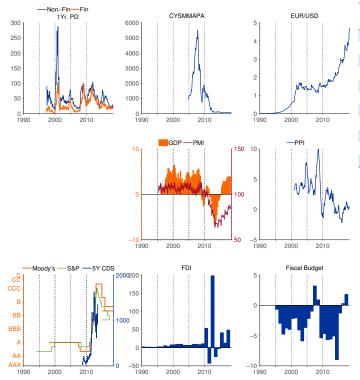
China		2017		2018		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	29.22	23.36	23.60	23.99	29.94	
1Yr. PD, Fin.	41.48	34.81	34.65	36.86	49.39	
SSE Composite	3192	3349	3307	3169	2847	
USD/CNY	6.78	6.65	6.51	6.28	6.62	
10Y Treas. Yield (%)	3.57	3.62	3.90	3.75	3.48	
3m Interbank (%)	4.50	4.36	4.91	4.46	4.16	
GDP (YoY%)	6.9	6.8	6.8	6.8	6.7	
OECD CLI	99.91	99.41	98.94	99.06	99.59*	
PMI	51.7	52.4	51.6	51.5	51.5	
PPI (YoY%)	5.50	6.90	4.90	3.10	4.70	
Money Supply (YoY%)	9.10	9.00	8.10	8.20	8.00	
Sov. Rating, Moody's	A1	A1	A1	A1	A1	
Sov. Rating, S&P	A+	A+	A+	A+	A+	
5Y CDS (bps)	69.43	62.00	50.09	63.80	67.64	
FDI (%GDP)	-	-	1.37	-	-	
Fiscal Budget (%GDP)	-	-	-3.72	-	-	



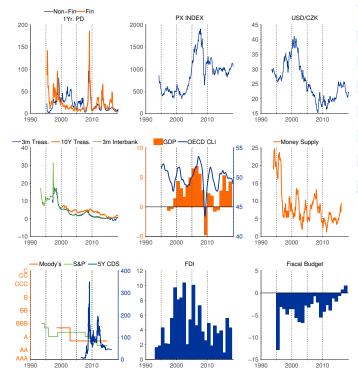
Colombia		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	11.40	7.80	6.44	4.63	8.25
1Yr. PD, Fin.	7.82	3.67	2.90	2.19	2.20
IGBC	4363	4413	4493	4340	4832
COP/USD	3043	2939	2987	2795	2931
10Y Treas. Yield (%)	6.42	6.57	6.48	6.51	6.58
3m Interbank (%)	5.85	5.45	5.34	5.04	4.52
GDP (YoY%)	-	-	1.8	-	-
PPI (YoY%)	-0.84	1.18	1.86	1.65	3.08
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
5Y CDS (bps)	136.1	122.2	104.7	106.7	125.2
FDI (%GDP)	_	_	4.70	_	_
Fiscal Budget (%GDP)	-	-	-3.23	-	-



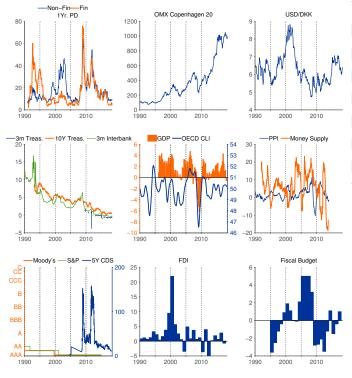
Croatia	2017			2018		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	37.02	41.43	53.85	44.41	39.13	
1Yr. PD, Fin.	13.81	21.18	19.47	11.06	10.62	
CROBEX	1866	1811	1843	1805	1816	
USD/HRK	6.49	6.34	6.19	6.03	6.32	
3m Interbank (%)	0.36	0.36	0.30	0.25	0.25	
GDP (YoY%)	-	-	2.9	-	_	
PPI (YoY%)	0.3	1.9	1.7	1.3	3.5	
Money Supply (YoY%)	2.9	3.3	2.1	4.4	6.1*	
Sov. Rating, Moody's	Ba2	Ba2	Ba2	Ba2	Ba2	
Sov. Rating, S&P	BB+	BB+	BB+	BB+	BB+	
FDI (%GDP)	-	-	3.83	_	_	
Fiscal Budget (%GDP)	_	_	0.76	_	_	



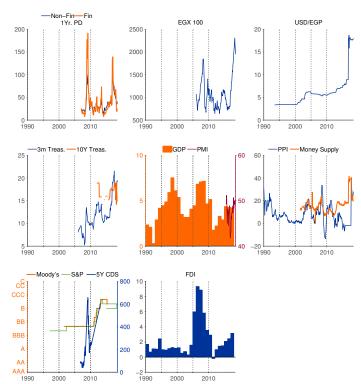
Cyprus		2017		2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	20.29	25.86	20.39	22.41	19.70
1Yr. PD, Fin.	19.23	14.97	18.95	19.56	15.31
CYSMMAPA	76.7	74.1	69.5	66.9	75.0
EUR/USD	3.52	3.56	3.80	3.96	4.59
GDP (YoY%)	3.60	3.90	4.00	3.80	-
PMI	87.4	83.5	88.4	83.8	_
PPI (YoY%)	1.3	0.9	0.2	0.1	0.5*
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
Sov. Rating, S&P	BB+	BB+	BB+	BB+	BB+
FDI (%GDP)	-	-	48.55	-	_
Fiscal Budget (%GDP)	-	-	1.80	-	_



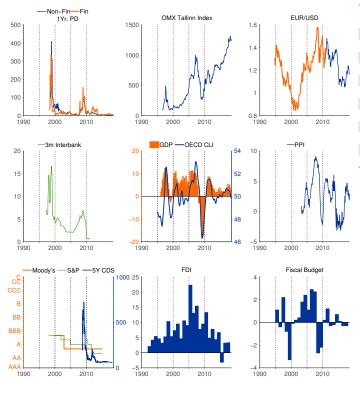
Czech Republic	2017			20	2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	4.79	9.43	5.92	8.32	9.87	
1Yr. PD, Fin.	4.43	3.92	3.60	3.48	4.98	
PX INDEX	980	1045	1078	1124	1064	
USD/CZK	22.86	22.00	21.29	20.56	22.24	
3m Treas. Yield (%)	-0.41	-0.67	0.32	0.46	0.66	
10Y Treas. Yield (%)	0.96	1.24	1.61	1.85	2.20	
3m Interbank (%)	0.30	0.47	0.76	0.90	1.16	
GDP (YoY%)	_	_	4.3	_	-	
OECD CLI	99.78	99.77	99.70	99.25	98.89*	
Sov. Rating, Moody's	A1	A1	A1	A1	A1	
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-	
FDI (%GDP)	-	-	4.27	-	-	
Fiscal Budget (%GDP)	-	-	1.60	-	-	



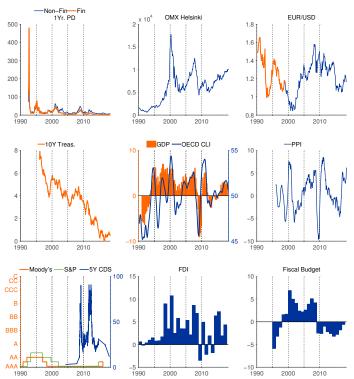
Denmark		2017		20	2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	9.14	8.02	8.18	8.71	9.69		
1Yr. PD, Fin.	4.33	4.58	4.11	6.53	4.20		
OMX Copenhagen 20	988.1	1024.1	1024.2	976.6	961.8		
USD/DKK	6.51	6.30	6.21	6.05	6.38		
3m Treas. Yield (%)	-0.68	-0.68	-0.84	-0.68	-0.65		
10Y Treas. Yield (%)	0.67	0.55	0.48	0.55	0.32		
3m Interbank (%)	-0.24	-0.31	-0.31	-0.30	-0.30		
GDP (YoY%)	2.5	1.1	1.3	-0.6	-		
OECD CLI	100.30	100.34	100.32	100.19	100.15*		
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa		
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA		
5Y CDS (bps)	18.35	15.39	12.86	11.47	-		
FDI (%GDP)	-	-	-0.70	-	-		
Fiscal Budget (%GDP)	_	_	1.00	-	_		



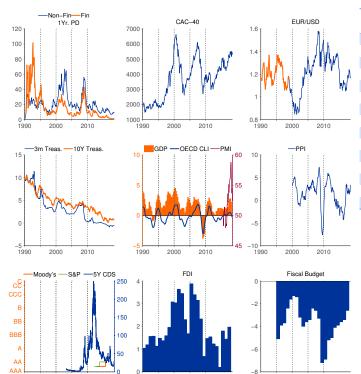
Egypt		2017			2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	62.65	58.15	54.04	34.67	41.17	
1Yr. PD, Fin.	72.66	54.42	67.28	21.63	25.66	
EGX 100	1509.2	1723.8	1971.8	2238.3	2062.1	
USD/EGP	18.13	17.64	17.81	17.65	17.92	
3m Treas. Yield (%)	20.38	18.46	18.77	18.00	19.47	
10Y Treas. Yield (%)	17.40	18.00	15.25	14.18	16.00	
GDP (YoY%)	-	-	4.2	-	-	
PMI	47.2	47.4	48.3	49.2	49.4	
PPI (YoY%)	-1.8	38.0	26.9	24.1	28.1*	
Money Supply (YoY%)	39.3	39.7	20.9	21.9	19.3*	
Sov. Rating, Moody's	B3	B3	B3	B3	B3	
Sov. Rating, S&P	В	В	В	В	В	
FDI (%GDP)	-	-	3.14	-	-	



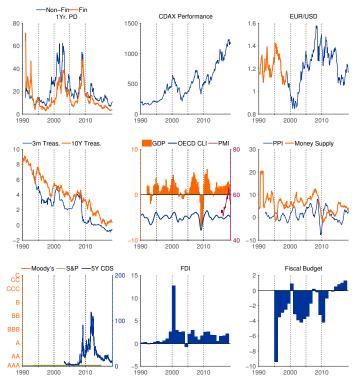
Estonia		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	2.25	2.10	1.46	1.59	1.94
1Yr. PD, Fin.	6.08	4.69	6.91	5.28	8.14
OMX Tallinn Index	1137	1226	1242	1269	1262
EUR/USD	1.14	1.18	1.20	1.23	1.17
GDP (YoY%)	5.4	4.2	5.1	3.8	-
OECD CLI	100.51	100.54	100.38	100.05	99.81*
PPI (YoY%)	3.3	4.5	2.7	2.9	2.9
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	-	-	_	58.2	-
FDI (%GDP)	-	-	3.29	-	-
Fiscal Budget (%GDP)	-	-	-0.30	-	-



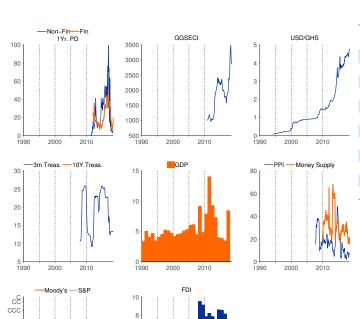
Finland		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	4.78	5.61	6.40	7.01	5.96
1Yr. PD, Fin.	2.15	2.20	2.17	2.08	2.01
OMX Helsinki	9568	9652	9472	9590	9996
EUR/USD	1.14	1.18	1.20	1.23	1.17
10Y Treas. Yield (%)	0.50	0.62	0.60	0.60	0.48
GDP (YoY%)	3.2	2.4	2.6	2.9	-
OECD CLI	101.62	101.67	101.51	101.07	100.63*
PPI (YoY%)	3.3	4.0	3.0	3.4	6.2
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
5Y CDS (bps)	-	-	-	11.9	-
FDI (%GDP)	-	-	4.31	-	-
Fiscal Budget (%GDP)	-	-	-0.60	-	-



France		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	6.68	7.36	8.91	9.74	9.39
1Yr. PD, Fin.	1.01	1.05	1.27	1.39	1.42
CAC-40	5121	5330	5313	5167	5324
EUR/USD	1.14	1.18	1.20	1.23	1.17
3m Treas. Yield (%)	-0.60	-0.59	-0.78	-0.58	-0.63
10Y Treas. Yield (%)	0.81	0.74	0.79	0.72	0.67
GDP (YoY%)	2.3	2.7	2.8	2.2	-
OECD CLI	100.47	100.50	100.37	99.99	99.71*
PMI	54.8	56.1	58.8	53.7	52.5
PPI (YoY%)	1.5	2.1	1.7	2.2	3.4
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
Sov. Rating, S&P	AA	AA	AA	AA	AA
5Y CDS (bps)	21.81	20.42	17.35	17.34	26.67
FDI (%GDP)	-	_	1.97	_	_
Fiscal Budget (%GDP)	-	-	-2.60	-	-



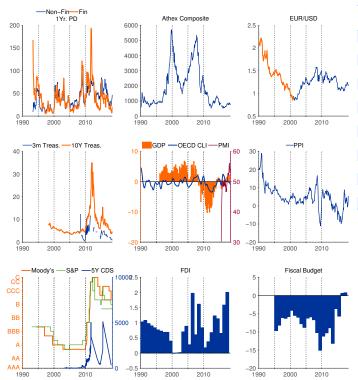
Germany		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	7.20	7.27	7.76	9.29	11.13
1Yr. PD, Fin.	4.21	3.21	3.59	3.92	3.74
CDAX Performance	1132	1190	1210	1145	1162
EUR/USD	1	1	1	1	1
3m Treas. Yield (%)	-0.82	-0.70	-0.69	-0.75	-0.59
10Y Treas. Yield (%)	0.47	0.46	0.43	0.50	0.30
GDP (YoY%)	2.3	2.7	2.9	2.3	-
OECD CLI	100.63	100.96	100.97	100.52	100.16*
PMI	59.6	60.6	63.3	58.2	55.9
PPI (YoY%)	2.4	3.1	2.4	1.9	3.0
Money Supply (YoY%)	4.6	4.9	4.1	3.2	4.3
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	15.5	12.5	9.5	10.5	11.6
FDI (%GDP)	-	-	2.12	-	-
Fiscal Budget (%GDP)	-	-	1.30	-	-



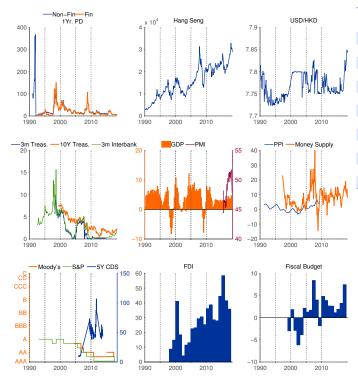
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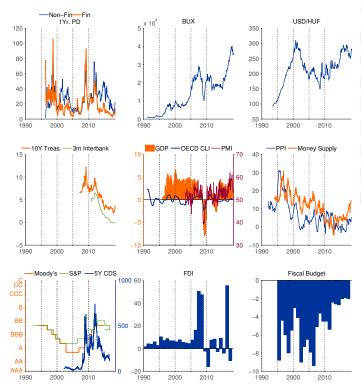
Ghana		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	41.52	5.34	3.72	2.89	5.55
1Yr. PD, Fin.	33.67	17.56	11.55	7.41	20.07
GGSECI	1965	2326	2580	3367	2879
USD/GHS	4.41	4.41	4.50	4.34	4.73
3m Treas. Yield (%)	12.32	13.15	13.31	13.32	13.33
10Y Treas. Yield (%)	19.00*	_	_	_	_
GDP (YoY%)	-	-	8.4	-	-
PPI (YoY%)	3.2	7.5	8.7	3.7	7.7
Money Supply (YoY%)	33.0	25.4	19.8	20.2	15.1
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B-	B-	B-	B-	B-
FDI (%GDP)	-	-	6.88	-	-



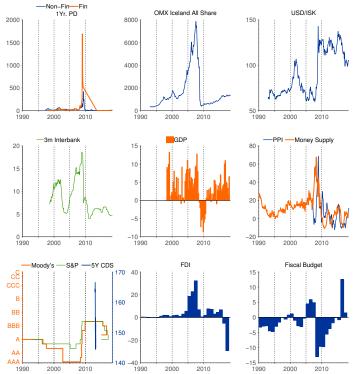
Greece		2017			18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	25.59	26.78	29.24	30.61	46.64
1Yr. PD, Fin.	15.28	19.11	14.76	10.60	20.21
Athex Composite	823.7	755.6	802.4	780.5	757.6
EUR/USD	1.14	1.18	1.20	1.23	1.17
3m Treas. Yield (%)	-	2.02	1.93	1.30	1.04
10Y Treas. Yield (%)	5.42	5.66	4.12	4.32	3.96
GDP (YoY%)	1.5	1.5	2.0	2.3	-
OECD CLI	100.22	99.98	99.79	99.58	99.10*
PMI	50.5	52.8	53.1	55.0	53.5
PPI (YoY%)	1.3	4.1	1.7	-0.2	5.5*
Sov. Rating, Moody's	B3	B3	B3	B3	B3
Sov. Rating, S&P	B+	B+	B+	B+	B+
5Y CDS (bps)	-	-	-	317.43	-
FDI (%GDP)	-	-	2.01	-	-
Fiscal Budget (%GDP)	-	-	0.80	-	-



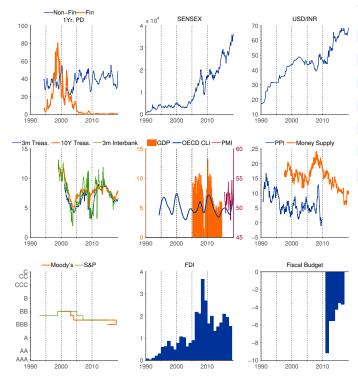
Hong Kong		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	6.18	5.81	5.50	6.38	8.23
1Yr. PD, Fin.	6.35	5.88	6.83	6.98	8.04
Hang Seng	25765	27554	29919	30093	28955
USD/HKD	7.81	7.81	7.81	7.85	7.85
10Y Treas. Yield (%)	1.49	1.71	1.83	1.99	2.25
3m Interbank (%)	0.78	0.78	1.31	1.21	2.10
GDP (YoY%)	3.9	3.6	3.4	4.7	-
PMI	51.1	51.2	51.5	50.6	47.7
Money Supply (YoY%)	15.90	13.20	11.60	9.60	7.80*
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
FDI (%GDP)	-	-	35.85	-	-
Fiscal Budget (%GDP)	_	-	7.47	_	_



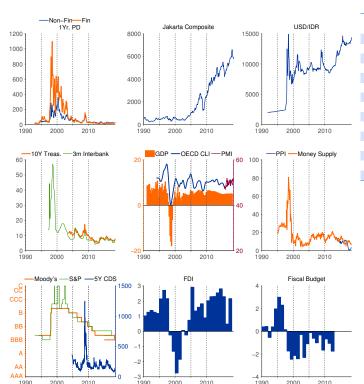
Hungary		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	13.85	13.70	7.47	13.64	22.42
1Yr. PD, Fin.	3.01	6.23	5.11	7.03	13.31
BUX	35205	37291	39377	37259	36128
USD/HUF	270.29	263.74	258.91	253.55	281.79
10Y Treas. Yield (%)	3.08	2.62	2.03	2.39	3.62
3m Interbank (%)	0.01	-0.11	-0.12	-0.13	0.05
GDP (YoY%)	3.30	3.90	4.40	4.40	-
OECD CLI	100.39	100.49	100.23	100.19	100.34*
PMI	56.9	59.3	60.5	56.6	53.0
PPI (YoY%)	1.5	4.1	3.9	3.5	5.3*
Money Supply (YoY%)	9.88	12.74	7.83	13.71	14.81*
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	-	_	-10.66	_	-
Fiscal Budget (%GDP)	-	-	-2.00	-	-



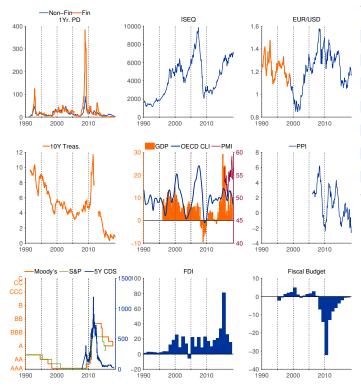
Iceland		2017		20	018
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	4.15	10.91	9.25	8.11	10.51
1Yr. PD, Fin.	1.65	4.88	3.86	2.45	3.63
OMX Iceland All Share	1347	1286	1290	1361	1325
USD/ISK	101.81	106.11	103.56	98.61	105.45
3m Interbank (%)	4.90	4.90	4.65	4.65	4.70
GDP (YoY%)	4.7	3.4	1.5	6.6	-
PPI (YoY%)	-10.20	-1.40	2.40	3.70	11.70
Money Supply (YoY%)	5.18	7.48	5.03	0.57	5.01
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	Α	Α	Α	Α	Α
FDI (%GDP)	-	-	-29.37	-	-
Fiscal Budget (%GDP)	-	-	1.51	-	-



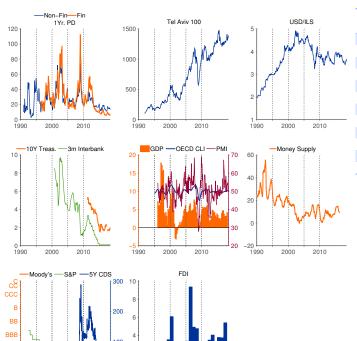
	2017		2018	
Q2	Q3	Q4	Q1	Q2
33.17	33.57	28.98	33.16	48.82
0.59	0.67	0.48	0.53	1.18
30922	31284	34057	32969	35423
64.58	65.28	63.87	65.18	68.47
6.29	6.08	6.20	6.11	6.46
6.51	6.66	7.33	7.40	7.90
6.47	6.38	6.42	-	-
99.15	99.61	100.22	100.93	101.43*
50.9	51.2	54.7	51.0	53.1
7.0	6.0	10.5	9.6	9.8
Baa2	Baa2	Baa2	Baa2	Baa2
BBB-	BBB-	BBB-	BBB-	BBB-
-	-	1.54	-	-
	33.17 0.59 30922 64.58 6.29 6.51 6.47 99.15 50.9 7.0 Baa2	Q2         Q3           33.17         33.57           0.59         0.67           30922         31284           64.58         65.28           6.29         6.08           6.51         6.66           6.97         6.38           99.15         99.61           50.9         51.2           7.0         6.0           Baa2         Baa2	Q2         Q3         Q4           33.17         33.57         28.98           0.59         0.67         0.48           30922         31284         34057           64.58         65.28         63.87           6.29         6.08         6.20           6.51         6.66         7.33           6.47         6.38         6.42           99.15         99.61         100.22           50.9         51.2         54.7           7.0         6.0         10.5           Baa2         Baa2         Baa2           BBB-         BBB-         BBB-	Q2         Q3         Q4         Q1           33.17         33.57         28.98         33.16           0.59         0.67         0.48         0.53           30922         31284         34057         32969           64.58         65.28         63.87         65.18           6.29         6.08         6.20         6.11           6.51         6.66         7.33         7.40           6.47         6.38         6.42         99.15         99.61         100.22         100.93           50.9         51.2         54.7         51.0         7.0         6.0         10.5         9.6           Baa2         Baa2         Baa2         Baa2         Baa2         Baa2         BaB-           BBB-         BBB-         BBB-         BBB-         BBB-



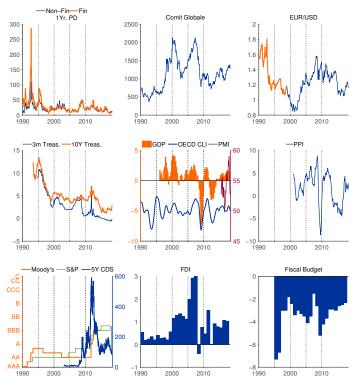
Indonesia		2017	20	2018		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	28.74	26.29	24.27	23.12	27.78	
1Yr. PD, Fin.	17.82	18.34	18.34	17.26	20.51	
Jakarta Composite	5830	5901	6356	6189	5799	
USD/IDR	13348.00	13472.00	13555.00	13728.00	14330.00	
10Y Treas. Yield (%)	6.83	6.50	6.32	6.67	7.80	
3m Interbank (%)	7.01	5.20	5.48	5.36	7.10	
GDP (YoY%)	5.1	5.1	5.1	5.1	_	
OECD CLI	100.98	101.02	100.15	99.25	98.82*	
PMI	49.5	50.4	49.3	50.7	50.3	
PPI (YoY%)	2.5	0.5	1.3	1.6	3.5	
Money Supply (YoY%)	10.3	10.9	8.3	7.5	6.0*	
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2	
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-	
5Y CDS (bps)	117.41	104.39	85.25	102.01	136.20	
FDI (%GDP)	-	-	2.17	-	-	



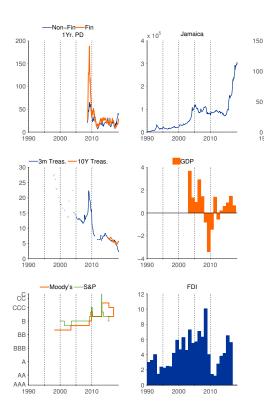
Ireland		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	6.79	5.37	4.84	3.72	5.29
1Yr. PD, Fin.	2.54	0.73	0.30	1.04	2.01
ISEQ	6828	6882	7038	6594	6983
EUR/USD	1.14	1.18	1.20	1.23	1.17
10Y Treas. Yield (%)	0.90	0.74	0.67	0.91	0.81
GDP (YoY%)	6.7	13.0	5.4	10.0	_
OECD CLI	101.37	101.04	100.39	99.31	98.52*
PMI	56.0	55.4	59.1	54.1	56.6
PPI (YoY%)	-0.8	0.5	-1.9	-1.6	-2.5
Sov. Rating, Moody's	A2	A2	A2	A2	A2
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	39.71*	31.72*	25.25*	19.99	-
FDI (%GDP)	-	-	15.44	-	-
Fiscal Budget (%GDP)	_	_	-0.30	-	_



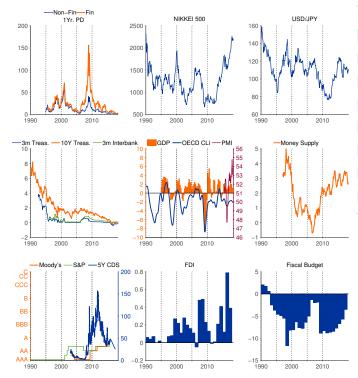
Israel		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	13.18	16.38	15.30	15.51	13.54
1Yr. PD, Fin.	7.90	8.36	7.73	6.99	5.38
Tel Aviv 100	1289	1292	1364	1310	1363
USD/ILS	3.50	3.54	3.48	3.49	3.66
10Y Treas. Yield (%)	2.13*	1.76	1.70	1.65	1.99
3m Interbank (%)	0.10	0.10	0.10	0.10	0.10
GDP (YoY%)	3.1	3.1	3.1	4.1	-
OECD CLI	99.80	99.89	100.37	100.58	100.41*
PMI	50.3	57.2	53.4	54.7	52.6
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A+	A+	A+	A+	A+
FDI (%GDP)	-	-	5.40	-	-



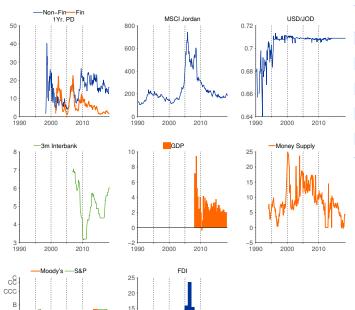
Italy		2017			2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	8.80	8.71	12.09	11.51	10.19	
1Yr. PD, Fin.	7.46	7.23	8.28	8.14	12.30	
Comit Globale	1219	1319	1297	1308	1284	
EUR/USD	1.14	1.18	1.20	1.23	1.17	
3m Treas. Yield (%)	-0.38	-0.41	-0.60	-0.43	-0.12	
10Y Treas. Yield (%)	2.16	2.11	2.02	1.79	2.68	
GDP (YoY%)	1.6	1.7	1.6	1.4	-	
OECD CLI	100.18	100.65	100.80	100.40	100.03*	
PMI	55.2	56.3	57.4	55.1	53.3	
PPI (YoY%)	2.5	1.6	2.2	2.2	2.7*	
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2	
Sov. Rating, S&P	BBB	BBB	BBB	BBB	BBB	
5Y CDS (bps)	145.62	138.29	117.37	102.31	229.00	
FDI (%GDP)	_	_	1.03	_	-	
Fiscal Budget (%GDP)	-	-	-2.30	-	-	



Jamaica		2017	20	2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	18.12	21.94	29.06	35.31	38.55
1Yr. PD, Fin.	10.35	11.01	15.99	17.16	29.39
Jamaica	235043	262729	288382	294533	305736
JMD/USD	128.34	129.55	124.58	126.22	130.15
3m Treas. Yield (%)	5.77	4.98	4.18	2.98	2.54
10Y Treas. Yield (%)	5.00	4.78	4.96	5.20	5.72
GDP (YoY%)	-	-	0.7	-	-
Sov. Rating, Moody's	B3	B3	B3	B3	B3
Sov. Rating, S&P	В	В	В	В	В



Japan		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	1.16	0.70	0.64	1.07	1.27
1Yr. PD, Fin.	3.88	2.47	1.96	2.70	2.92
NIKKEI 500	1910	2007	2208	2165	2174
USD/JPY	112.39	112.51	112.69	106.28	110.76
3m Treas. Yield (%)	-0.09	-0.17	-0.16	-0.16	-0.14
10Y Treas. Yield (%)	0.09	0.07	0.05	0.05	0.04
3m Interbank (%)	0.06	0.06	0.07	0.07	0.07
GDP (YoY%)	1.6	2.0	2.0	1.1	-
OECD CLI	100.13	100.16	100.12	99.98	99.97*
PMI	52.4	52.9	54.0	53.1	53.0
Money Supply (YoY%)	3.30	3.40	3.10	2.60	2.70
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	-	25.17*	-	-	-
FDI (%GDP)	-	-	0.39	-	-
Fiscal Budget (%GDP)	-	-	-3.52	-	-

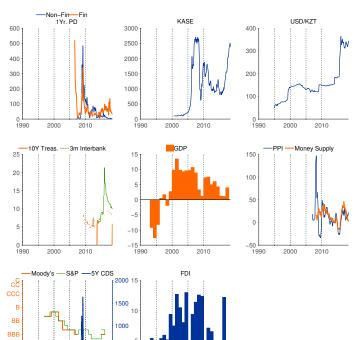


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2000

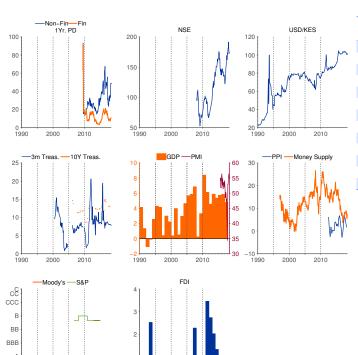
	2017		2018	
Q2	Q3	Q4	Q1	Q2
14.91	13.59	13.43	12.55	16.10
2.57	3.24	2.14	1.80	1.74
172	167	179	199	187
0.71	0.71	0.71	0.71	0.71
5.59	5.59	5.76	5.95	6.03
2.3	2.0	1.9	2.0	_
2.38	-0.31	0.25	4.36	4.11*
B1	B1	B1	B1	B1
B+	B+	B+	B+	B+
_	_	4.15	-	_
	14.91 2.57 172 0.71 5.59 2.3 2.38 B1	Q2     Q3       14.91     13.59       2.57     3.24       172     167       0.71     0.71       5.59     5.59       2.3     2.0       2.38     -0.31       B1     B1	Q2         Q3         Q4           14.91         13.59         13.43           2.57         3.24         2.14           172         167         179           0.71         0.71         0.71           5.59         5.59         5.76           2.3         2.0         1.9           2.38         -0.31         0.25           B1         B1         B1           B+         B+         B+	Q2         Q3         Q4         Q1           14.91         13.59         13.43         12.55           2.57         3.24         2.14         1.80           172         167         179         199           0.71         0.71         0.71         0.71           5.59         5.56         5.95           2.3         2.0         1.9         2.0           2.38         -0.31         0.25         4.36           B1         B1         B1         B1           B+         B+         B+         B+



500

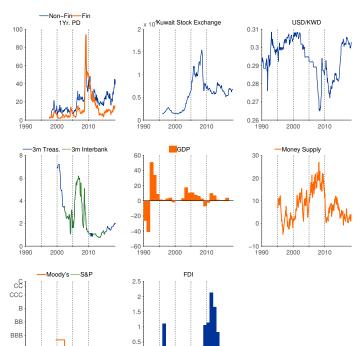
AA AAA 1990

Kazakhstan		2017	2017		18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	4.62	5.44	3.23	2.21	2.32
1Yr. PD, Fin.	78.54	135.56	56.53	41.35	30.52
KASE	1660	2049	2163	2437	2412
USD/KZT	322.18	340.68	332.85	318.73	341.28
10Y Treas. Yield (%)	-	-	8.97*	8.52	0.00
3m Interbank (%)	11.50	11.25	11.25	10.50	10.00
GDP (YoY%)	-	-	4.0	-	-
PPI (YoY%)	9.6	9.5	17.6	13.5	22.2
Money Supply (YoY%)	27.57	26.15	7.54	4.75	6.03
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	-	-	2.85	-	-



Kenya		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	25.26	32.75	29.26	33.23	48.03
1Yr. PD, Fin.	10.23	7.95	9.40	8.71	10.47
NSE	153	162	171	191	174
USD/KES	103.75	103.10	103.18	101.25	101.01
3m Treas. Yield (%)	8.28	8.13	8.08	8.00	7.73
10Y Treas. Yield (%)	-	13.07	13.09	12.91	-
GDP (YoY%)	-	-	4.8	-	-
PMI	47.3	40.9	53.0	55.7	55.0
PPI (YoY%)	6.4	5.4	3.2	1.5	-
Money Supply (YoY%)	6.03	7.71	8.91	5.94	7.60*
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	-	-	0.90	-	-

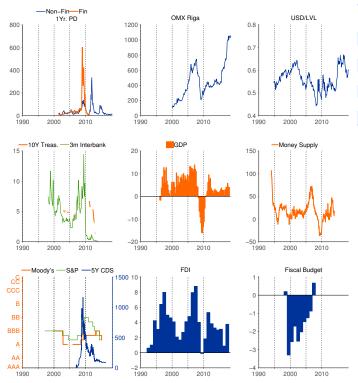
AA 1990



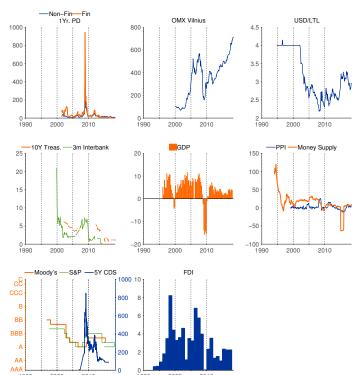
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2010

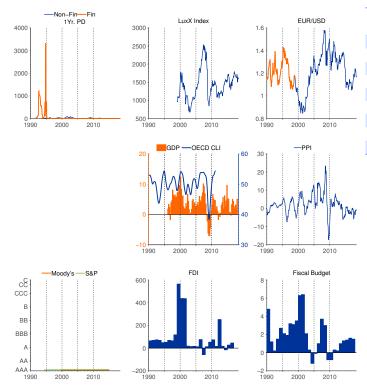
Kuwait		2017			2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	23.53	30.95	32.45	44.87	44.60	
1Yr. PD, Fin.	9.58	10.48	15.73	13.54	15.92	
Kuwait Stock Exchange	6763	6680	6408	6633	-	
USD/KWD	0.30	0.30	0.30	0.30	0.30	
3m Treas. Yield (%)	1.75	1.75	1.88	2.00	2.00	
Money Supply (YoY%)	0.31	2.38	3.81	1.02	4.01*	
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2	
Sov. Rating, S&P	AA	AA	AA	AA	AA	
FDI (%GDP)	_	-	0.11	-	-	



Latvia		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	8.69	7.14	13.42	10.01	9.45
OMX Riga	970	999	996	1046	1057
USD/LVL	0.62	0.59	0.59	0.57	0.60
GDP (YoY%)	4.0	5.8	4.2	4.0	_
Sov. Rating, Moody's	А3	A3	A3	A3	А3
Sov. Rating, S&P	A-	A-	A-	A-	A-
FDI (%GDP)	_	_	3.76	_	_



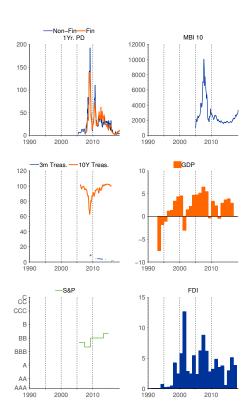
Lithuania	Lithuania 2017				18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	8.37	8.69	9.03	9.01	6.12
1Yr. PD, Fin.	1.03	0.48	0.56	0.57	0.56
OMX Vilnius	597	642	653	702	710
USD/LTL	3.02	2.92	2.88	2.80	2.96
10Y Treas. Yield (%)	1.15	1.18*	1.10*	1.16*	1.08
GDP (YoY%)	4.1	3.2	4.0	3.7	_
PPI (YoY%)	1.3	3.9	3.5	1.3	8.7
Money Supply (YoY%)	8.00	7.50	5.90	6.50	9.30
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	Α	Α	Α	Α	Α
FDI (%GDP)	-	-	2.25	-	-



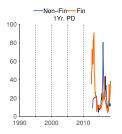
Luxembourg		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	9.13	7.11	9.78	7.93	6.73
1Yr. PD, Fin.	1.96	1.78	2.24	3.27	3.27
LuxX Index	1711	1652	1638	1506	1590
EUR/USD	1.14	1.18	1.20	1.23	1.17
GDP (YoY%)	1.7	3.2	1.8	5.1	_
PPI (YoY%)	-1.8	-3.1	-1.9	-1.4	-0.5*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
Fiscal Budget (%GDP)	-	-	1.50	-	-

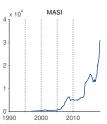
USD/MKD

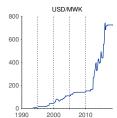
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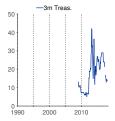
Macedonia		2017			2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	3.60	3.12	5.55	3.30	2.98		
1Yr. PD, Fin.	5.30	7.00	8.73	8.37	8.70		
MBI 10	2282	2689	2539	2766	3333		
USD/MKD	53.84	52.08	51.25	50.01	52.78		
GDP (YoY%)	-	_	0.0	-	-		
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-		
FDI (%GDP)	-	_	3.80	-	-		



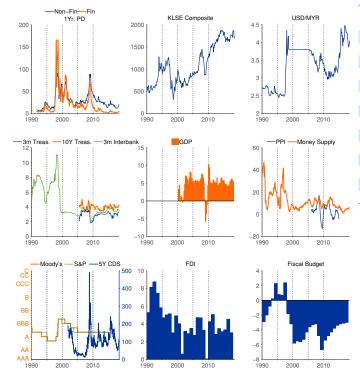




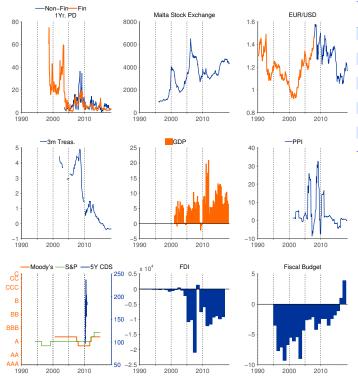
Malawi		2017	20	2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	11.36	12.19	20.45	11.12	14.09
1Yr. PD, Fin.	-	12.17	19.73	18.42	38.63
MASI	15773	19920	21598	25287	30737
USD/MWK	725.19	725.50	725.52	726.50	726.28
3m Treas. Yield (%)	21.30*	14.50	14.50	14.00	14.00*
FDI (%GDP)	-	-	4.40	-	-





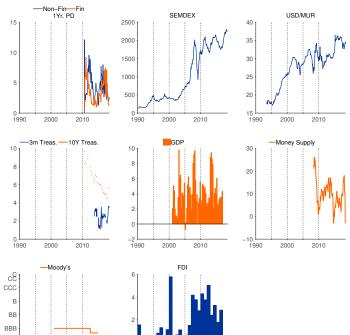


Malaysia		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	11.45	11.85	11.95	16.29	20.27
1Yr. PD, Fin.	2.16	2.33	2.29	3.29	5.72
KLSE Composite	1764	1756	1797	1863	1692
USD/MYR	4.29	4.22	4.05	3.86	4.04
3m Treas. Yield (%)	3.07	2.93	2.86	3.19	3.28
10Y Treas. Yield (%)	3.93	3.93	3.91	3.95	4.20
3m Interbank (%)	3.43	3.43	3.44	3.69	3.69
GDP (YoY%)	5.8	6.2	5.9	5.4	-
Money Supply (YoY%)	4.30	5.00	4.70	5.90	5.50*
Sov. Rating, Moody's	A3	A3	A3	A3	А3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	85.45	68.99	58.37	73.09	107.56
FDI (%GDP)	-	-	3.02	-	-
Fiscal Budget (%GDP)	_	_	-3.00	_	-

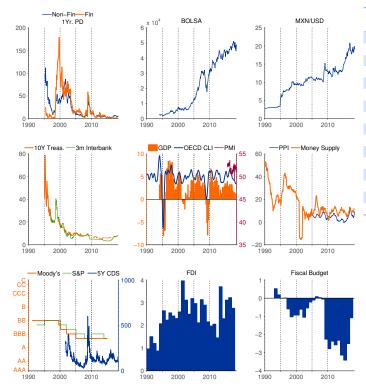


	2017		20	18
Q2	Q3	Q4	Q1	Q2
4.21	3.88	3.51	3.33	2.94
1.97	2.13	2.93	2.64	3.25
4697	4694	4509	4474	4361
1.14	1.18	1.20	1.23	1.17
-0.34	-0.36	-0.38	-0.35	-0.35
10.0	10.4	7.5	6.5	-
0.6	0.8	0.6	0.1	0.3*
A3	А3	A3	A3	A3
BBB+	BBB+	BBB+	BBB+	BBB+
_	_	3.90	_	_
	4.21 1.97 4697 1.14 -0.34 10.0 0.6 A3	Q2     Q3       4.21     3.88       1.97     2.13       4697     4694       1.14     1.18       -0.34     -0.36       10.0     10.4       0.6     0.8       A3     A3	Q2         Q3         Q4           4.21         3.88         3.51           1.97         2.13         2.93           4697         4694         4509           1.14         1.18         1.20           -0.34         -0.36         -0.38           10.0         10.4         7.5           0.6         0.8         0.6           A3         A3           BBB+         BBB+         BBB+	Q2         Q3         Q4         Q1           4.21         3.88         3.51         3.33           1.97         2.13         2.93         2.64           4697         4694         4509         4474           1.14         1.18         1.20         1.23           -0.34         -0.36         -0.38         -0.35           10.0         10.4         7.5         6.5           0.6         0.8         0.6         0.1           A3         A3         A3           BBB+         BBB+         BBB+         BBB+

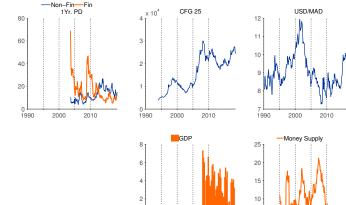
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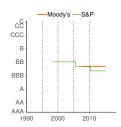
Mauritius		2017			2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	4.43	3.15	3.31	2.22	2.62		
1Yr. PD, Fin.	2.78	2.87	2.53	1.51	1.34		
SEMDEX	2123	2230	2202	2288	2245		
USD/MUR	34.48	33.92	33.57	33.45	34.56		
3m Treas. Yield (%)	2.35*	1.80	2.40	3.60	3.60		
10Y Treas. Yield (%)	_	4.89*	4.47*	5.58	-		
Money Supply (YoY%)	9.00	15.00	16.00	10.00	-3.00*		
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1		



Mexico		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	6.99	6.52	4.22	4.36	4.90
1Yr. PD, Fin.	0.85	0.81	1.87	1.19	1.41
BOLSA	49857	50346	49354	46125	47663
MXN/USD	18.12	18.25	19.66	18.18	19.91
10Y Treas. Yield (%)	6.97	6.79	7.53	7.52	7.54*
3m Interbank (%)	7.40	7.38	7.67	7.87	8.14
GDP (YoY%)	1.9	1.5	1.5	1.3	-
OECD CLI	99.37	99.19	98.95	98.46	98.41*
PMI	52.3	52.8	51.7	52.4	52.1
PPI (YoY%)	6.5	5.0	5.2	4.6	9.2
Money Supply (YoY%)	8.30	9.20	9.40	10.30	12.10*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	112.63	110.31	106.11	109.35	134.23
FDI (%GDP)	-	-	2.76	-	-
Fiscal Budget (%GDP)	-	-	-1.09	-	-

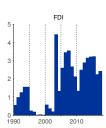


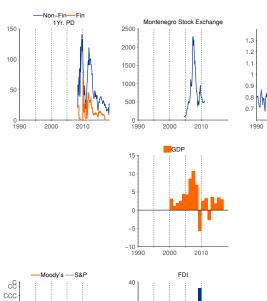
Morocco		2017			2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	12.81	13.20	17.03	11.50	14.85	
1Yr. PD, Fin.	10.28	10.21	10.52	10.26	12.08	
CFG 25	25205	25358	25864	27191	24763	
USD/MAD	9.64	9.42	9.33	9.20	9.48	
GDP (YoY%)	4.2	3.8	4.1	3.2	-	
Money Supply (YoY%)	4.70	5.40	5.50	5.70	5.29*	
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1	
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-	
FDI (%GDP)	_	_	2.42	_	_	



BB BBB

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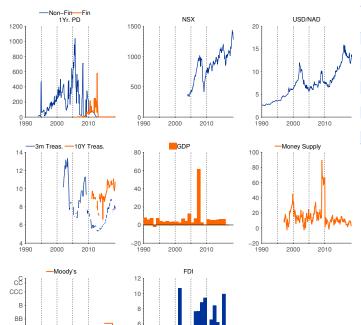




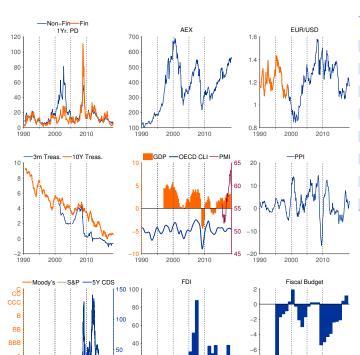
Montenegro	2017			2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	15.08	15.68	18.07	8.58	25.68
1Yr. PD, Fin.	0.00	0.00	0.00	-	-
EUR/USD	0.88	0.85	0.83	0.81	0.86
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	_	_	11.49	_	-

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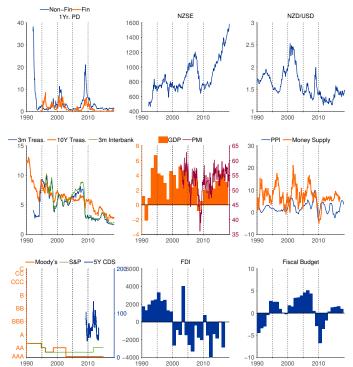
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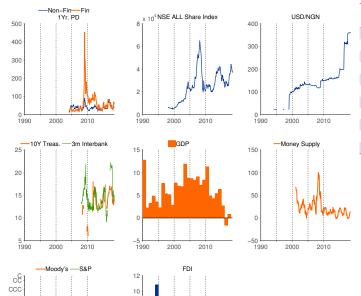
Namibia	2017			2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	0.37	0.28	3.74	4.13	5.94
1Yr. PD, Fin.	0.00	0.00	0.00	0.01	0.02
NSX	1014	1128	1300	1378	1284
USD/NAD	13.07	13.56	12.38	11.84	13.73
3m Treas. Yield (%)	7.74	7.52	7.70	7.87	7.94
10Y Treas. Yield (%)	10.49	10.43*	11.07	9.75	10.72
Money Supply (YoY%)	6.63	9.23	9.53	7.67	2.53*
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1
FDI (%GDP)	-	-	3.15	_	-



Netherlands	2017			20	2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	8.01	7.55	6.78	7.00	6.62	
1Yr. PD, Fin.	4.83	4.77	2.42	4.07	4.06	
AEX	507	537	545	530	552	
EUR/USD	1.14	1.18	1.20	1.23	1.17	
3m Treas. Yield (%)	-0.64	-0.71	-0.84	-0.62	-0.63	
10Y Treas. Yield (%)	0.66	0.58	0.53	0.64	0.46	
GDP (YoY%)	3.3	2.9	3.0	3.1	-	
OECD CLI	100.53	100.58	100.62	100.47	100.30*	
PMI	58.6	60.0	62.2	61.5	60.1	
PPI (YoY%)	2.9	3.9	1.7	1.0	3.2*	
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa	
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA	
5Y CDS (bps)	19.54	17.21	13.27	11.11	-	
FDI (%GDP)	-	_	38.12	_	_	
Fiscal Budget (%GDP)	-	-	1.10	-	-	



New Zealand		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	1.39	1.15	0.85	1.48	0.90
1Yr. PD, Fin.	0.13	0.34	0.11	0.63	0.06
NZSE	1392	1429	1511	1482	1583
NZD/USD	1.36	1.39	1.41	1.38	1.48
3m Treas. Yield (%)	1.84	1.77	1.60	1.65	1.67
10Y Treas. Yield (%)	2.98	2.97	2.72	2.72	2.85
3m Interbank (%)	1.99	1.96	1.88	1.96	2.00
GDP (YoY%)	-	_	3.1	_	_
PMI	56.0	57.6	51.0	53.1	52.8
PPI (YoY%)	5.2	5.3	4.7	3.5	_
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AA	AA	AA	AA	AA
Fiscal Budget (%GDP)	-	_	0.90	_	_

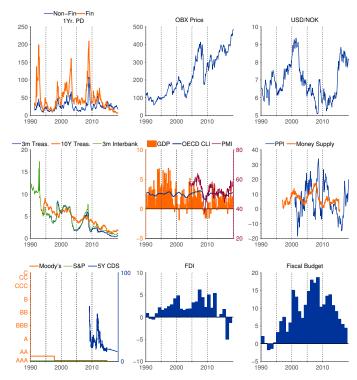


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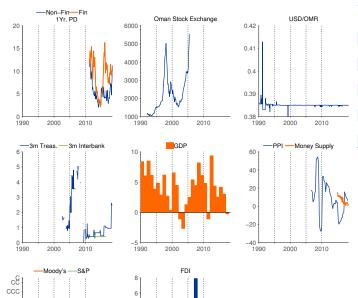
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Nigeria		2017	20	18	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	48.33	51.34	31.68	38.01	40.41
1Yr. PD, Fin.	34.61	49.54	30.45	46.55	57.08
NSE ALL Share Index	33117	35440	38243	41505	38279
USD/NGN	322.25	358.99	359.99	360.00	361.24
10Y Treas. Yield (%)	16.19	15.90	13.21	13.60	13.81
3m Interbank (%)	21.61	21.21	15.39	16.01	15.00
GDP (YoY%)	-	-	0.8	-	-
Money Supply (YoY%)	-0.44	-0.27	1.74	8.96	14.20*
Sov. Rating, Moody's	B2	B2	B2	B2	B2
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	-	-	0.93	-	-



Norway		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	25.53	26.03	23.81	22.50	16.44
1Yr. PD, Fin.	11.59	8.78	7.12	7.72	5.77
OBX Price	390	444	456	451	486
USD/NOK	8.35	7.96	8.20	7.84	8.15
3m Treas. Yield (%)	0.35	0.36	0.35	0.50	0.61
10Y Treas. Yield (%)	1.65	1.59	1.59	1.85	1.78
3m Interbank (%)	0.83	0.81	0.81	1.17	0.98
GDP (YoY%)	2.1	3.6	1.6	2.1	-
OECD CLI	100.22	100.44	100.81	100.92	100.90*
PMI	55.9	52.0	57.9	55.1	55.8*
PPI (YoY%)	3.2	8.7	7.3	6.4	20.0
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	-	-	-	10.71	-
FDI (%GDP)	-	-	-1.24	-	-
Fiscal Budget (%GDP)	-	-	4.42	-	-

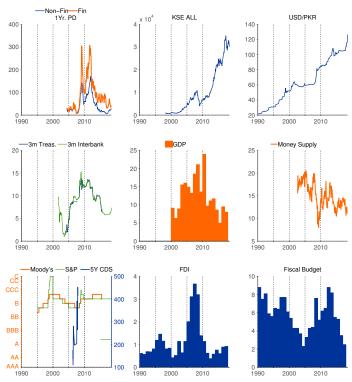


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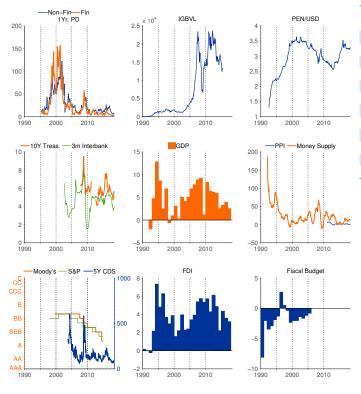
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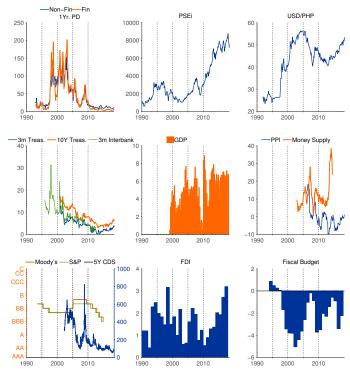
Oman		2017			2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	4.28	5.33	6.89	4.74	11.25	
1Yr. PD, Fin.	7.74	9.34	11.30	9.11	9.86	
USD/OMR	0.39	0.38	0.38	0.38	0.38	
3m Treas. Yield (%)	0.95	0.95	0.95	2.48	2.48	
GDP (YoY%)	-	-	-0.3	-	-	
PPI (YoY%)	12.5	10.2	8.6	6.2	_	
Money Supply (YoY%)	3.77	3.66	4.18	2.77	2.24*	
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3	
Sov. Rating, S&P	BB	BB	BB	BB	BB	



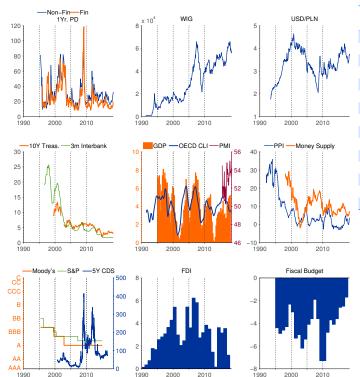
Pakistan		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	12.40	18.33	24.32	22.58	29.70
1Yr. PD, Fin.	40.55	48.81	62.34	42.01	36.54
KSE ALL	32494	30396	29774	32727	30583
USD/PKR	104.91	105.42	110.45	115.58	121.51
3m Interbank (%)	5.89	5.90	5.91	6.25	6.67
GDP (YoY%)	-	-	8.0	-	_
Money Supply (YoY%)	13.70	12.70	10.70	12.50	11.10*
Sov. Rating, Moody's	B3	B3	B3	B3	В3
Sov. Rating, S&P	A-	A-	A-	A-	A-
FDI (%GDP)	-	-	0.92	-	-
Fiscal Budget (%GDP)	-	-	2.50	-	-



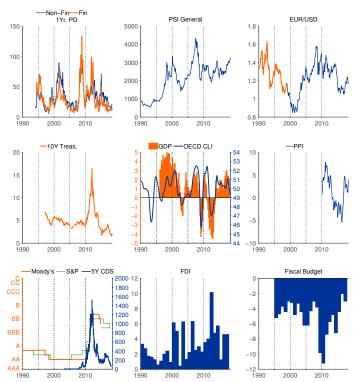
Peru		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	10.97	7.33	5.95	5.42	6.94
1Yr. PD, Fin.	3.25	2.30	2.23	1.96	2.44
PEN/USD	3.25	3.27	3.24	3.23	3.28
10Y Treas. Yield (%)	5.54	5.29	5.17	4.83	5.58
3m Interbank (%)	5.05	4.68	4.16	3.55	3.97
GDP (YoY%)	_	-	2.5	_	_
PPI (YoY%)	1.4	0.8	-0.6	0.3	1.7
Money Supply (YoY%)	12.50	10.30	13.00	13.10	10.80*
Sov. Rating, Moody's	А3	А3	A3	А3	A3
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	85.54	83.23	71.96	81.63	89.15
FDI (%GDP)	_	_	3.20	_	_



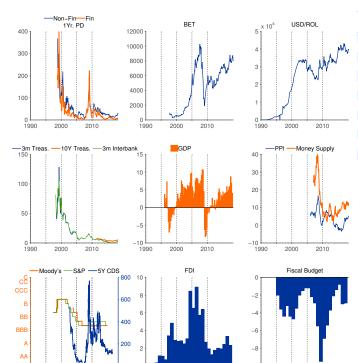
Philippines		2017	2018		
•	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	9.18	8.17	7.90	8.27	11.25
1Yr. PD, Fin.	2.66	2.75	3.05	4.52	5.85
PSEi	7843	8171	8558	7980	7194
USD/PHP	50.47	50.87	49.85	52.20	53.37
3m Treas. Yield (%)	2.81	2.02	2.50	3.09	3.91
10Y Treas. Yield (%)	5.06	4.61	5.70	6.00	6.41
GDP (YoY%)	6.6	7.2	6.5	6.8	-
PPI (YoY%)	-2.0	-0.5	-1.1	-0.8	1.1*
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB	BBB	BBB	BBB	BBB
5Y CDS (bps)	77.37	65.14	67.28	74.09	91.31
FDI (%GDP)	_	_	3.20	-	_
Fiscal Budget (%GDP)	-	_	-2.22	-	_



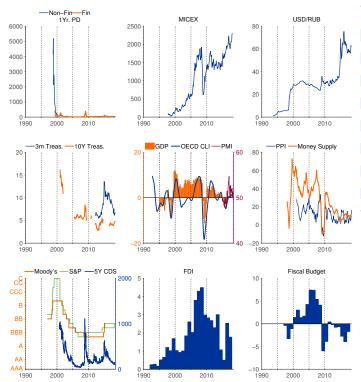
Poland		2017		20	118
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	15.74	19.65	20.73	24.23	32.68
1Yr. PD, Fin.	10.28	13.00	14.66	13.19	18.88
WIG	61018	64290	63746	58377	55954
USD/PLN	3.70	3.65	3.48	3.42	3.74
10Y Treas. Yield (%)	3.32	3.37	3.30	3.17	3.22
3m Interbank (%)	1.63	1.63	1.62	1.60	1.60
GDP (YoY%)	4.0	4.9	5.1	5.2	-
OECD CLI	99.93	99.56	99.46	99.50	99.36*
PMI	53.1	53.7	55.0	53.7	54.2
PPI (YoY%)	1.8	3.2	0.3	0.5	3.7
Money Supply (YoY%)	5.00	5.40	4.60	5.80	7.30
Sov. Rating, Moody's	A2	A2	A2	A2	A2
Sov. Rating, S&P	A-	A-	A-	A-	A-
FDI (%GDP)	-	_	1.20	-	-
Fiscal Budget (%GDP)	-	-	-1.70	-	-



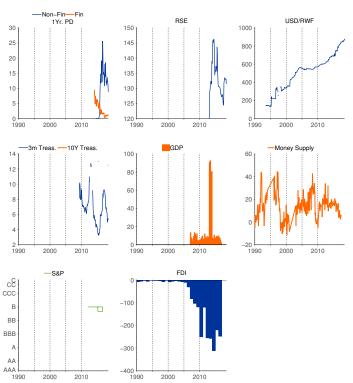
Portugal		2017		2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	16.98	17.58	15.41	19.86	20.84
1Yr. PD, Fin.	11.58	11.06	12.80	14.80	11.22
PSI General	2826	2996	2970	3008	3229
EUR/USD	1.14	1.18	1.20	1.23	1.17
10Y Treas. Yield (%)	3.03	2.39	1.94	1.61	1.79
GDP (YoY%)	3.0	2.4	2.4	2.1	-
OECD CLI	100.97	100.96	100.21	99.71	99.30*
PPI (YoY%)	2.6	2.7	2.2	1.2	4.0
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
5Y CDS (bps)	196.40	127.88	80.64	63.21	-
FDI (%GDP)	-	-	4.61	-	-
Fiscal Budget (%GDP)	-	-	-3.00	-	-



Damania		2017		00	118
Romania		2017		20	118
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	14.92	18.15	21.11	20.65	29.24
1Yr. PD, Fin.	2.91	6.24	4.99	4.41	7.06
BET	7855	7878	7754	8714	8087
USD/ROL	39947.20	38894.02	38970.50	37768.50	39913.00
10Y Treas. Yield (%)	3.92	4.09	4.31	4.46	5.21
3m Interbank (%)	0.65	1.35	1.86	1.90	2.99
GDP (YoY%)	6.1	8.8	6.9	4.0	_
PPI (YoY%)	2.1	4.3	3.4	3.8	5.2*
Money Supply (YoY%)	8.85	12.21	11.41	11.56	12.75
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	-	-	2.34	-	-
Fiscal Budget (%GDP)	-	-	-2.90	-	-

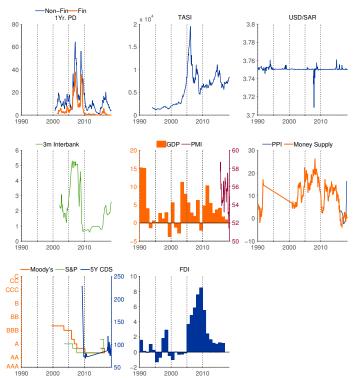


Russia		2017		20	2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	55.17	53.55	46.48	36.65	35.32		
1Yr. PD, Fin.	31.77	32.34	30.88	23.37	27.60		
MICEX	1880	2077	2110	2286	-		
USD/RUB	58.94	57.49	57.63	57.13	62.74		
3m Treas. Yield (%)	8.46	7.81	6.55	6.39	6.64		
10Y Treas. Yield (%)	4.28	4.04	3.87	4.53	4.79		
GDP (YoY%)	2.5	1.8	-	1.3	-		
OECD CLI	100.19	100.36	100.74	100.85	100.74*		
PMI	50.3	51.9	52.0	50.6	49.5		
PPI (YoY%)	2.9	6.8	8.4	4.8	16.1		
Money Supply (YoY%)	10.50	9.50	10.50	9.90	10.30*		
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1		
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-		
5Y CDS (bps)	169.23	142.08	127.58	123.53	141.22		
FDI (%GDP)	-	-	1.77	-	-		
Fiscal Budget (%GDP)	-	-	-1.72	-	-		

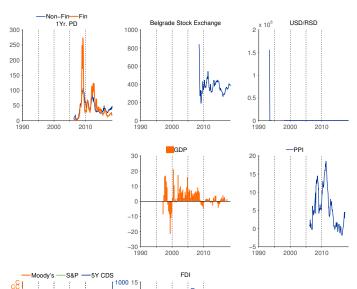


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Rwanda		2017			2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	13.83	13.83	11.08	12.61	8.76		
1Yr. PD, Fin.	0.52	1.01	0.83	1.17	1.42		
RSE	125	132	133	133	132		
USD/RWF	841.15	846.30	854.00	855.00	876.45		
3m Treas. Yield (%)	8.72	6.91	6.59	4.99	5.45		
10Y Treas. Yield (%)	-	-	-	-	12.50*		
Money Supply (YoY%)	6.30*	-	-	-	-		
Sov. Rating, S&P	В	В	В	В	В		

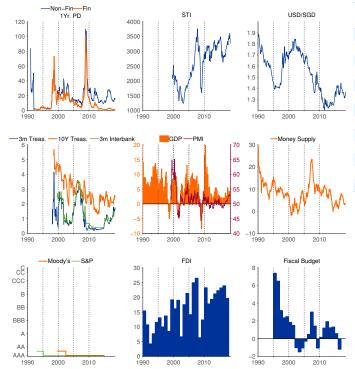


Saudi Arabia		2017	20	2018	
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	8.88	6.48	5.98	4.33	4.05
1Yr. PD, Fin.	0.27	0.09	0.04	0.02	0.01
TASI	7426	7283	7226	7871	8314
USD/SAR	3.75	3.75	3.75	3.75	3.75
3m Interbank (%)	1.78	1.79	1.90	2.27	2.59
GDP (YoY%)	_	-	0.9	-	_
PMI	54.3	55.5	57.3	52.8	55.0
PPI (YoY%)	-2.0	-1.1	0.4	16.5	_
Money Supply (YoY%)	2.60	1.00	0.20	0.20	0.60*
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	118.18	85.54	91.94	84.56	91.02

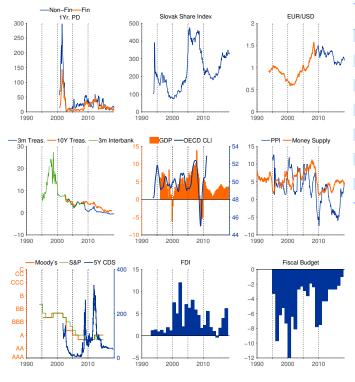


BB BBB

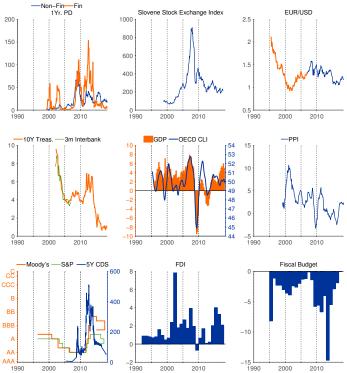
Serbia		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	34.77	34.74	35.83	45.30	48.12
1Yr. PD, Fin.	17.08	21.28	24.23	26.80	19.38
Belgrade Stock Exchange	344	349	380	395	384
USD/RSD	105.39	100.87	98.49	95.91	100.99
GDP (YoY%)	1.3	-	-	-	-
PPI (YoY%)	4.5*	-	-	-	-
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
Sov. Rating, S&P	BB	BB	BB	BB	BB
FDI (%GDP)	-	-	6.95	-	-



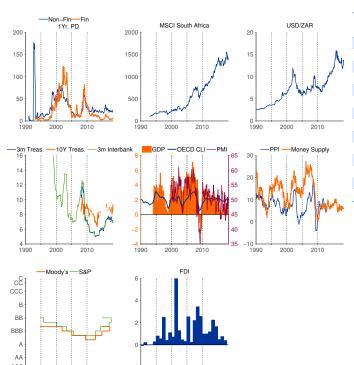
Singapore		2017		20	2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	14.34	14.46	12.25	14.52	16.61	
1Yr. PD, Fin.	1.57	1.02	1.17	1.57	2.05	
STI	3226	3220	3403	3428	3269	
USD/SGD	1.38	1.36	1.34	1.31	1.36	
3m Treas. Yield (%)	0.98	1.19	1.79	1.63	1.74	
10Y Treas. Yield (%)	2.09	2.15	2.00	2.29	2.53	
3m Interbank (%)	1.00	1.12	1.50	1.45	1.52	
GDP (YoY%)	2.8	5.5	3.6	4.3	3.8	
PMI	50.9	52.0	52.8	53.0	52.5	
Money Supply (YoY%)	7.00	5.30	3.20	2.80	2.90*	
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa	
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA	
FDI (%GDP)	-	-	19.65	-	-	



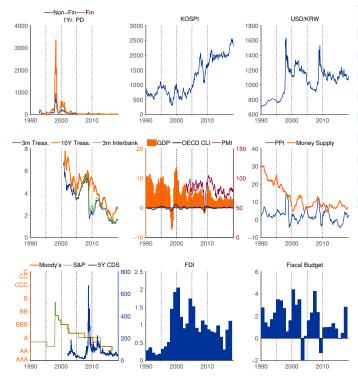
	2017		20	18
Q2	Q3	Q4	Q1	Q2
9.29	14.84	16.33	16.84	13.25
8.30	10.50	4.71	11.40	5.56
329	317	326	330	326
1.14	1.18	1.20	1.23	1.17
-0.52	-0.47	-0.64	-0.57	-0.46
1.02	0.86	0.82*	_	0.87
3.4	3.5	3.5	3.6	-
1.4	2.1	2.0	3.3	4.5*
5.30	5.50	5.20	4.40	4.80
A2	A2	A2	A2	A2
A+	A+	A+	A+	A+
43.46	_	43.76*	37.90	_
-	-	6.18	-	-
_	_	-1.00	_	_
	9.29 8.30 329 1.14 -0.52 1.02 3.4 1.4 5.30 A2 A+	Q2 Q3 9.29 14.84 8.30 10.50 329 317 1.14 1.18 -0.52 -0.47 1.02 0.86 3.4 3.5 1.4 2.1 5.30 5.50 A2 A2 A+ A+	Q2         Q3         Q4           9.29         14.84         16.33           8.30         10.50         4.71           329         317         326           1.14         1.18         1.20           -0.52         -0.47         -0.64           1.02         0.86         0.82*           3.4         3.5         3.5           1.4         2.1         2.0           5.30         5.50         5.20           A2         A2         A2           A+         A+         A+           43.46         -         43.76*           -         6.18	Q2         Q3         Q4         Q1           9.29         14.84         16.33         16.84           8.30         10.50         4.71         11.40           329         317         326         330           1.14         1.18         1.20         1.23           -0.52         -0.47         -0.64         -0.57           1.02         0.86         0.82*         -           3.4         3.5         3.5         3.6           1.4         2.1         2.0         3.3           5.30         5.50         5.20         4.40           A2         A2         A2         A2           A+         A+         A+         A+           43.46         -         43.76*         37.90           -         6.18         -



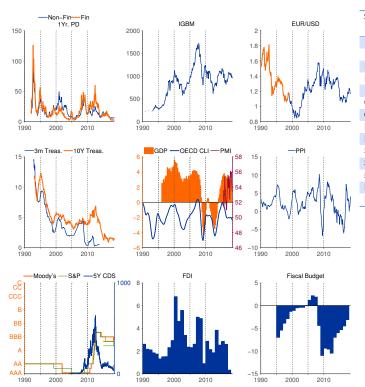
Slovenia		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	22.55	24.33	20.23	19.18	18.46
1Yr. PD, Fin.	5.42	3.60	3.98	7.49	2.74
Slovene Stock Exchange Index	218	218	214*	-	_
EUR/USD	1.14	1.18	1.20	1.23	1.17
10Y Treas. Yield (%)	0.86	0.98	0.69	1.11	0.96*
GDP (YoY%)	5.4	5.0	6.0	5.0	-
OECD CLI	100.09	100.08	100.26	100.06	99.82
PPI (YoY%)	2.2	2.3	2.2	2.2	2.4
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	-	65.87	-	49.88	_
FDI (%GDP)	-	-	2.10	-	-
Fiscal Budget (%GDP)	-	-	0.00	-	_



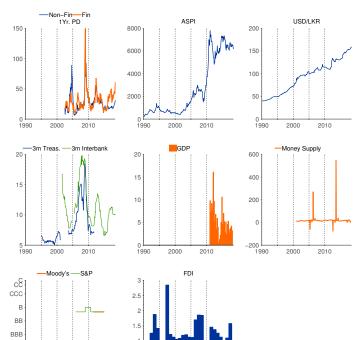
South Africa		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	22.69	23.24	20.34	20.73	25.41
1Yr. PD, Fin.	4.86	3.22	4.17	4.42	6.18
MSCI South Africa	1305	1386	1537	1402	1421
USD/ZAR	13.07	13.56	12.38	11.84	13.73
3m Treas. Yield (%)	7.58	7.24	7.63	6.99	7.17
10Y Treas. Yield (%)	9.04*	8.37	9.63*	8.23	9.30
3m Interbank (%)	7.34	6.99	7.16	6.87	6.96
GDP (YoY%)	1.3	0.8	1.5	8.0	_
OECD CLI	99.47	100.02	100.31	100.06	99.77*
PMI	46.7	44.9	44.9	46.9	47.9
Money Supply (YoY%)	6.09	7.13	6.42	6.43	5.73*
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BB	BB	BB	BB	BB
FDI (%GDP)	-	-	0.39	-	-



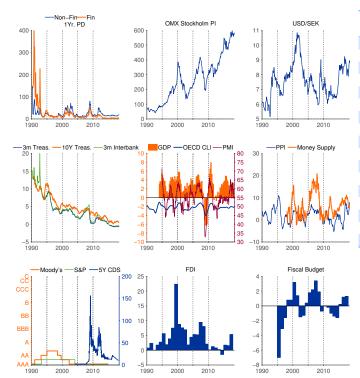
South Korea		2017		20	2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	3.80	4.08	3.22	3.24	5.65		
1Yr. PD, Fin.	9.78	11.26	12.90	14.20	21.20		
KOSPI	2392	2394	2467	2446	2326		
USD/KRW	1144.14	1145.44	1067.40	1063.63	1114.67		
3m Treas. Yield (%)	1.30	1.28	1.51	1.52	1.58		
10Y Treas. Yield (%)	2.21	2.37	2.47	2.62	2.56		
3m Interbank (%)	1.38	1.37	1.70	1.65	1.68		
GDP (YoY%)	2.8	3.8	2.8	2.8	2.9		
OECD CLI	100.74	100.45	100.16	99.77	99.52*		
PMI	84.0	83.0	82.0	82.0	79.0		
PPI (YoY%)	2.8	3.8	2.2	1.3	2.6		
Money Supply (YoY%)	6.70	5.90	6.10	6.70	6.60*		
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2		
Sov. Rating, S&P	AA	AA	AA	AA	AA		
5Y CDS (bps)	52.68	73.94	52.23	54.92	49.68		
FDI (%GDP)	-	-	1.11	-	-		
Fiscal Budget (%GDP)	-	_	2.82	_	_		



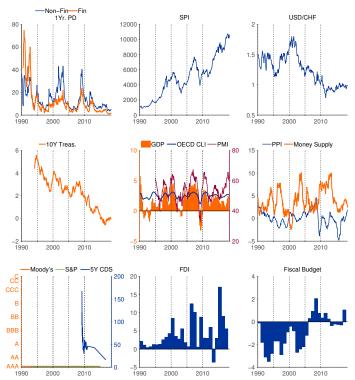
Spain		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	5.61	6.98	5.80	6.32	6.58
1Yr. PD, Fin.	3.01	2.70	3.13	2.34	1.53
IGBM	1052	1048	1015	976	975
EUR/USD	1.14	1.18	1.20	1.23	1.17
10Y Treas. Yield (%)	1.54	1.60	1.57	1.16	1.32
GDP (YoY%)	3.1	3.1	3.1	3.0	-
OECD CLI	99.95	99.95	100.00	99.84	99.64*
PMI	54.7	54.3	55.8	54.8	53.4
PPI (YoY%)	3.2	3.5	1.7	1.2	4.1
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	64.99	63.55	55.76	40.90	69.26
FDI (%GDP)	_	_	0.33	-	-
Fiscal Budget (%GDP)	-	-	-3.10	-	_



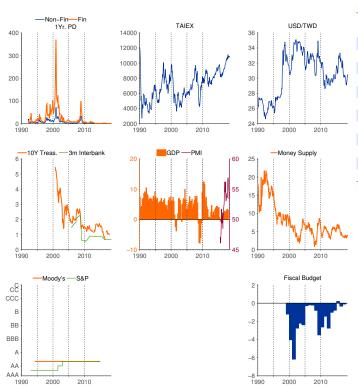
Sri Lanka		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	20.80	17.31	21.39	25.24	31.30
1Yr. PD, Fin.	33.43	37.59	39.56	45.84	61.29
ASPI	6747	6438	6369	6477	6195
USD/LKR	153.36	153.08	153.50	155.70	158.30
3m Interbank (%)	11.30	10.20	10.05	10.08	10.02
GDP (YoY%)	2.7	3.8	4.2	3.2	-
Money Supply (YoY%)	22.50	20.90	17.50	5.80	6.70*
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	-	-	1.58	-	-



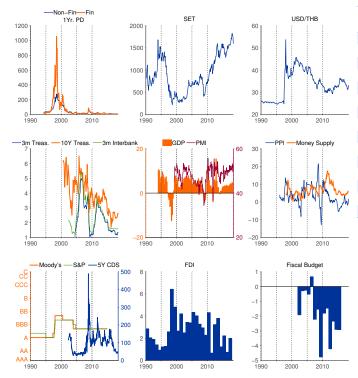
Sweden		2017		20	)18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	13.70	11.87	14.88	18.20	18.47
1Yr. PD, Fin.	2.66	3.16	3.91	4.19	3.22
OMX Stockholm PI	577	586	569	560	574
USD/SEK	8.43	8.15	8.18	8.34	8.94
3m Treas. Yield (%)	-0.70	-0.70	-0.73	-0.70	-0.65
10Y Treas. Yield (%)	0.66	0.92	0.78	0.69	0.50
3m Interbank (%)	-0.50	-0.47	-0.47	-0.36	-0.35
GDP (YoY%)	2.6	2.6	2.9	3.3	_
OECD CLI	99.96	99.85	99.67	99.52	99.56*
PMI	62.4	63.7	60.3	55.9	54.2
PPI (YoY%)	4.9	4.3	2.2	4.0	8.0
Money Supply (YoY%)	11.17	10.17	8.02	6.33	5.63*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	_	_	_	10.55	_
FDI (%GDP)	_	_	5.36	_	_
Fiscal Budget (%GDP)	_	_	1.30	_	_



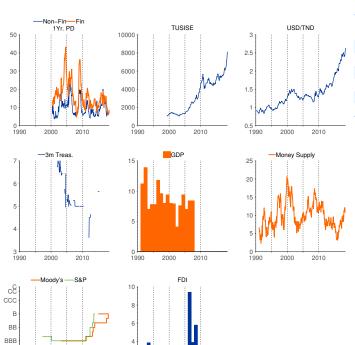
Switzerland		2017	20	2018		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	4.30	4.82	4.20	4.45	5.20	
1Yr. PD, Fin.	1.17	1.27	1.04	1.63	1.90	
SPI	10128	10447	10752	10190	10327	
USD/CHF	0.96	0.97	0.97	0.95	0.99	
10Y Treas. Yield (%)	-0.02	-0.02	-0.15	0.03	-0.06	
GDP (YoY%)	0.7	1.2	2.0	2.4	_	
OECD CLI	100.49	100.86	100.91	100.66	100.45*	
PMI	60.0	62.2	65.6	60.3	61.6	
PPI (YoY%)	-0.7	-0.2	0.5	1.1	1.9	
Money Supply (YoY%)	4.01	4.27	3.53	3.24	2.40	
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa	
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA	
FDI (%GDP)	-	-	5.58	-	-	
Fiscal Budget (%GDP)	-	-	1.05	-	-	



Taiwan		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	0.37	0.50	0.41	0.47	0.50
1Yr. PD, Fin.	0.40	0.47	0.34	0.26	0.25
TAIEX	10395	10384	10643	10919	10837
USD/TWD	30.43	30.32	29.73	29.11	30.48
10Y Treas. Yield (%)	1.10	1.05	0.98	-	-
3m Interbank (%)	0.66	0.66	0.66	0.66	0.66
GDP (YoY%)	2.3	3.2	3.4	3.0	-
PMI	53.3	54.2	56.6	55.3	54.5
Money Supply (YoY%)	3.57	3.58	3.56	3.45	3.76
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
Fiscal Budget (%GDP)	_	_	-0.11	_	-



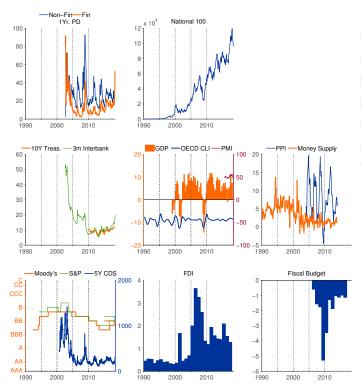
The discoul		0047			40	
Thailand		2017			2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	6.50	5.65	5.04	4.45	6.16	
1Yr. PD, Fin.	1.73	1.53	1.30	0.82	0.90	
SET	1575	1673	1754	1776	1596	
USD/THB	33.93	33.31	32.57	31.18	33.04	
3m Treas. Yield (%)	1.40	1.21	1.19	1.15	1.29	
10Y Treas. Yield (%)	2.48	2.29	2.32	2.40	2.58	
3m Interbank (%)	1.59	1.57	1.57	1.57	1.58	
GDP (YoY%)	3.9	4.3	4.0	4.8	-	
PMI	50.7	52.2	50.2	53.3	52.8	
PPI (YoY%)	-1.2	0.5	-0.6	-1.4	1.8	
Money Supply (YoY%)	4.31	4.89	5.00	6.16	5.26*	
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1	
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+	
5Y CDS (bps)	61.88	50.47	45.00	47.06	49.38	
FDI (%GDP)	-	-	2.00	-	-	



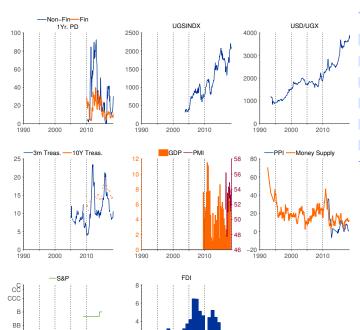
AA AAA 1990

2000

Tunisia	2017			20	2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	7.65	5.50	8.14	6.05	7.62	
1Yr. PD, Fin.	16.14	9.82	7.24	6.08	6.62	
TUSISE	6023	6181	6282	7143	8059	
USD/TND	2.45	2.48	2.46	2.41	2.61	
Money Supply (YoY%)	9.22	9.99	11.36	12.13	10.72*	
Sov. Rating, Moody's	B2	B2	B2	B2	B2	



Turkey		2017		20	2018	
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	22.44	23.73	22.41	24.05	48.35	
1Yr. PD, Fin.	15.70	17.90	15.27	20.37	46.49	
National 100	100440	102908	115333	114930	96520	
10Y Treas. Yield (%)	10.27	10.68	11.35	12.27	-	
3m Interbank (%)	13.02	13.12	14.96	13.98	19.29	
GDP (YoY%)	5.4	11.3	7.3	7.4	-	
OECD CLI	9.25	9.18	8.56	6.31	-	
PMI	54.7	53.5	54.9	51.8	46.8	
Sov. Rating, Moody's	Ba2	Ba2	Ba2	Ba2	Ba2	
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-	
5Y CDS (bps)	194.72	187.51	164.79	195.74	299.91	
FDI (%GDP)	-	-	1.28	-	_	



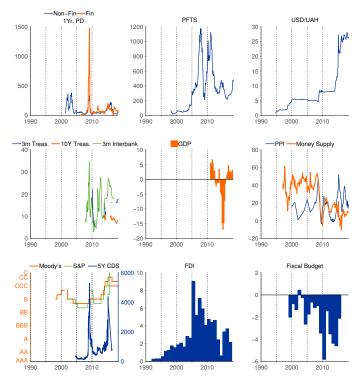
2000

2010

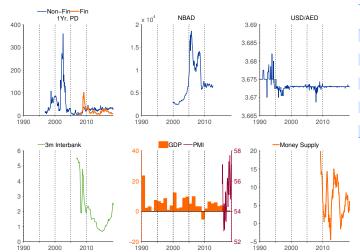
BBB

AA 1990

Uganda		2017		20	18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	17.25	11.53	12.54	12.54	30.23
1Yr. PD, Fin.	7.32	7.44	7.46	7.94	11.35
UGSINDX	1678	1718	2001	2203	2089
USD/UGX	3602.25	3596.76	3643.25	3688.05	3884.15
3m Treas. Yield (%)	10.82*	9.79	8.32	8.77	10.52
10Y Treas. Yield (%)	15.98*	14.92*	14.54*	14.38	-
GDP (YoY%)	6.5	7.3	6.4	6.4	-
PMI	52.8	53.8	54.3	53.2	53.2
PPI (YoY%)	7.0	7.0	2.1	0.2	-
Money Supply (YoY%)	13.55	12.70	12.78	11.14	12.30*
Sov. Rating, S&P	В	В	В	В	В
FDI (%GDP)	-	-	2.70	-	-

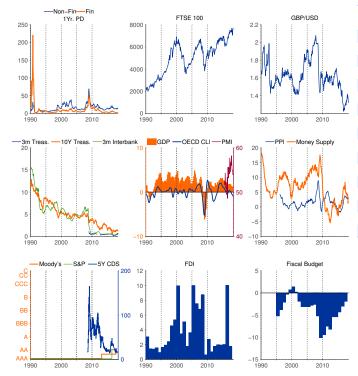


Ukraine		2017		2018		
	Q2	Q3	Q4	Q1	Q2	
1Yr. PD, Non-Fin. (bps)	24.17	32.70	22.61	18.78	46.01	
1Yr. PD, Fin.	111.94	114.52	80.82	72.60	86.89	
PFTS	286	294	315	354	463	
USD/UAH	26.08	26.58	28.10	26.27	26.34	
3m Treas. Yield (%)	_	-	16.00	17.33	17.35	
10Y Treas. Yield (%)	8.20	7.38	7.29	7.42	8.20	
GDP (YoY%)	2.6	2.4	2.2	3.1	-	
PPI (YoY%)	26.3	22.4	16.5	15.9	18.4	
Money Supply (YoY%)	6.50	6.60	9.60	8.70	9.90	
Sov. Rating, Moody's	Caa2	Caa2	Caa2	Caa2	Caa2	
Sov. Rating, S&P	B-	B-	B-	B-	B-	
FDI (%GDP)	_	_	2.16	_	_	

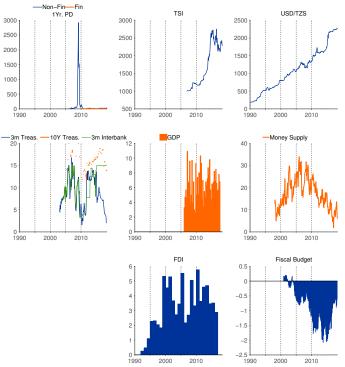


United Arab Emirates		2017			18
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	30.54	32.16	32.44	34.94	31.75
1Yr. PD, Fin.	11.41	14.29	8.06	7.87	7.84
USD/AED	3.67	3.67	3.67	3.67	3.67
3m Interbank (%)	1.51	1.56	1.79	2.33	2.43
GDP (YoY%)	-	-	0.5	-	-
PMI	55.8	55.1	57.7	54.8	57.1
Money Supply (YoY%)	7.20	6.53	5.36	4.15	6.19
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
5Y CDS (bps)	-	146.80	153.21*	-	-

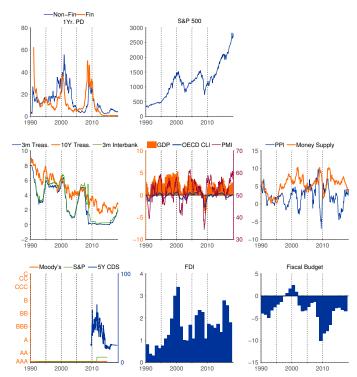
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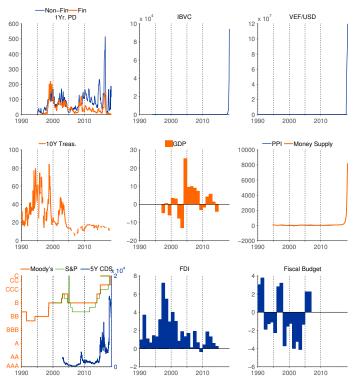
United Kingdom		2017		20	2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	12.78	13.13	13.37	15.17	12.55		
1Yr. PD, Fin.	2.74	2.30	1.60	1.96	1.88		
FTSE 100	7313	7373	7688	7057	7637		
GBP/USD	1.30	1.34	1.35	1.40	1.32		
3m Treas. Yield (%)	0.17	0.28	0.40	0.49	0.61		
10Y Treas. Yield (%)	1.26	1.37	1.19	1.35	1.28		
3m Interbank (%)	0.31	0.34	0.52	0.71	0.67		
GDP (YoY%)	1.8	1.7	1.3	1.2	-		
OECD CLI	100.20	99.96	99.54	99.26	99.08*		
PMI	54.5	56.0	56.0	54.9	54.4		
PPI (YoY%)	3.3	3.3	3.1	2.5	3.1		
Money Supply (YoY%)	5.40	4.80	3.80	2.30	1.80*		
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2		
Sov. Rating, S&P	AA	AA	AA	AA	AA		
5Y CDS (bps)	19.94	23.73	18.26	16.31	-		
FDI (%GDP)	-	-	1.78	-	-		
Fiscal Budget (%GDP)	-	_	-1.90	_	-		



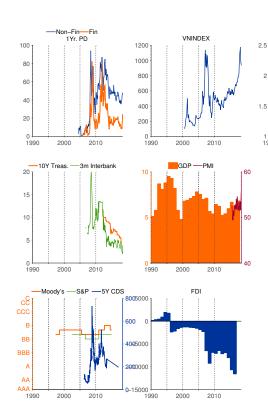
United Republic of Tanzania		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	1.63	1.15	1.97	1.71	1.86
1Yr. PD, Fin.	18.52	19.22	17.82	19.11	36.32
TSI	2217	2117	2396	2409	2281
USD/TZS	2227.00	2234.60	2234.63	2255.94	2270.03
3m Treas. Yield (%)	5.53	4.10	4.00	2.25	2.85
10Y Treas. Yield (%)	14.76	15.75*	15.89*	13.86	13.94*
3m Interbank (%)	15.00	15.00	15.00	15.00	15.00*
GDP (YoY%)	7.8	6.8	-	-	-
Money Supply (YoY%)	9.40	6.90	10.40	10.80	5.90*
Fiscal Budget (%GDP)	-0.75	-0.59	-0.63	-0.82	-0.62*



	2017			2018		
Q2	Q3	Q4	Q1	Q2		
4.62	4.05	4.08	4.36	4.10		
0.61	0.69	0.70	0.81	0.65		
2423	2519	2674	2641	2718		
1.01	1.04	1.38	1.70	1.91		
2.30	2.33	2.41	2.74	2.86		
1.10	1.25	1.67	1.67	2.25		
2.2	2.3	2.6	2.8	-		
99.59	99.69	99.91	100.15	100.18*		
56.7	60.2	59.3	59.3	60.2		
2.1	3.3	3.2	3.0	4.0		
5.60	5.20	4.70	4.00	4.20		
Aaa	Aaa	Aaa	Aaa	Aaa		
AA+	AA+	AA+	AA+	AA+		
-	-	-	19.42	-		
_	-	1.80	-	-		
_	_	-3.40	-	-		
	4.62 0.61 2423 1.01 2.30 1.10 2.2 99.59 56.7 2.1 5.60 Aaa	4.62 4.05 0.61 0.69 2423 2519 1.01 1.04 2.30 2.33 1.10 1.25 2.2 2.3 99.59 99.69 56.7 60.2 2.1 3.3 5.60 5.20 Aaa Aaa	Q2         Q3         Q4           4.62         4.05         4.08           0.61         0.69         0.70           2423         2519         2674           1.01         1.04         1.38           2.30         2.33         2.41           1.10         1.25         1.67           2.2         2.3         2.6           99.59         99.69         99.91           56.7         60.2         59.3           2.1         3.3         3.2           5.60         5.20         4.70           Aaa         Aaa         Aaa           AA+         AA+         AA+           -         -         -           -         -         1.80	Q2         Q3         Q4         Q1           4.62         4.05         4.08         4.36           0.61         0.69         0.70         0.81           2423         2519         2674         2641           1.01         1.04         1.38         1.70           2.30         2.33         2.41         2.74           1.10         1.25         1.67         1.67           2.2         2.3         2.6         2.8           99.59         99.69         99.91         100.15           56.7         60.2         59.3         59.3           2.1         3.3         3.2         3.0           5.60         5.20         4.70         4.00           Aaa         Aaa         Aaa         Aaa           AA+         AA+         AA+         AA+           -         -         19.42           -         -         1.80         -		



Venezuela		2017			2018		
	Q2	Q3	Q4	Q1	Q2		
1Yr. PD, Non-Fin. (bps)	69.33	57.56	36.78	33.77	116.94		
1Yr. PD, Fin.	9.05	3.75	5.12	6.61	0.96		
IBVC	123	489	1263	4647	92932		
VEF/USD	9985.05	10155.80	9987.50	49415653.89	95880011.43		
10Y Treas. Yield (%)	-	13.29	13.07	-	-		
Money Supply (YoY%)	326.50	533.90	1121.40	3011.60	8209.20		
Sov. Rating, Moody's	С	С	С	С	С		
Sov. Rating, S&P	CSD	CSD	CSD	CSD	CSD		
5Y CDS (bps)	3562 06	5191 26	15047 35*	_	11154 47		



Vietnam		2017	2018		
	Q2	Q3	Q4	Q1	Q2
1Yr. PD, Non-Fin. (bps)	37.19	36.61	35.56	40.37	48.02
1Yr. PD, Fin.	11.13	13.29	8.37	8.53	24.51
VNINDEX	776	804	984	1174	961
VND/USD	22731.00	22730.00	22698.00	22794.00	22938.00
10Y Treas. Yield (%)	5.80	5.60	5.30	4.30*	4.60*
3m Interbank (%)	4.00	3.20	4.30	2.60	2.05
GDP (YoY%)	-	-	6.8	-	-
PMI	52.5	53.3	52.5	51.6	55.7
Sov. Rating, Moody's	B1	B1	B1	B1	B1
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 C 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 October 2017 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 C. A list of the stock indices included in Appendix C 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.

# Conversion to Euro

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

**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.<sup>†</sup>

**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.

<sup>†</sup>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 C 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 67,000 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 33,000 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

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