
Quarterly Credit Report

Q4/2016

Volume 6, No 3



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 6, Issue 3 covers the fourth quarter of 2016. 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 probability of default (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 outputs 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. An exception is for 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 78 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, Egypt, Israel, Kuwait, Jordan, Morocco, Oman, Nigeria, Saudi Arabia, South Africa, Tunisia and the United Arab Emirates.

Credit Research Initiative

The QCR is a companion publication to the Global Credit Review and Weekly Credit Brief, with all three publications produced as part of the Credit Research Initiative (CRI) 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 60,000 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 December 2016, the PD system covers 119 economies in Africa, Asia-Pacific, Latin America, North America, the Middle East and Europe. The probabilities of default for more than 60,000 firms are available, including 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 are 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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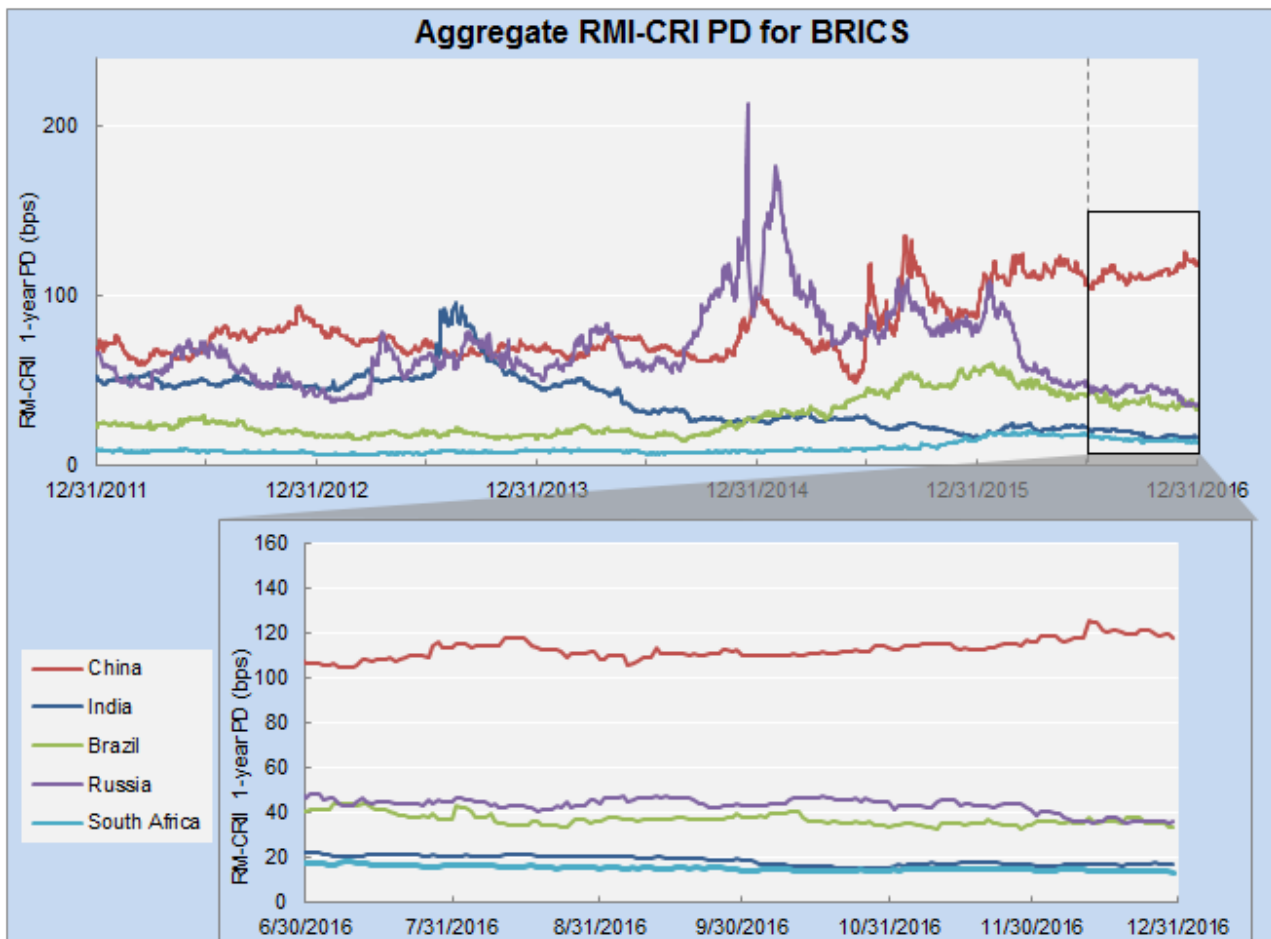
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Acronyms

BI	Bank of Indonesia
BOE	The Bank of England
ECB	European Central Bank
ELA	Emergency Liquidity Assistance
EU	The European Union
FTV	Financing-to-value
FDI	Foreign Direct Investment
GFC	2008-2009 Global Financial Crisis
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
MPC	Monetary Policy Committee
MoM	Month on Month
NIM	Net Interest margin
NODX	Non-oil domestic exports
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
PMI	Purchasing Managers Index
QoQ	Quarter on Quarter
REITS	Real Estate Investment Trusts
RHS	Right-hand side of graph
RRR	Reserve requirement ratio
WAIR	Weighted average interest rate
YoY	Year On Year

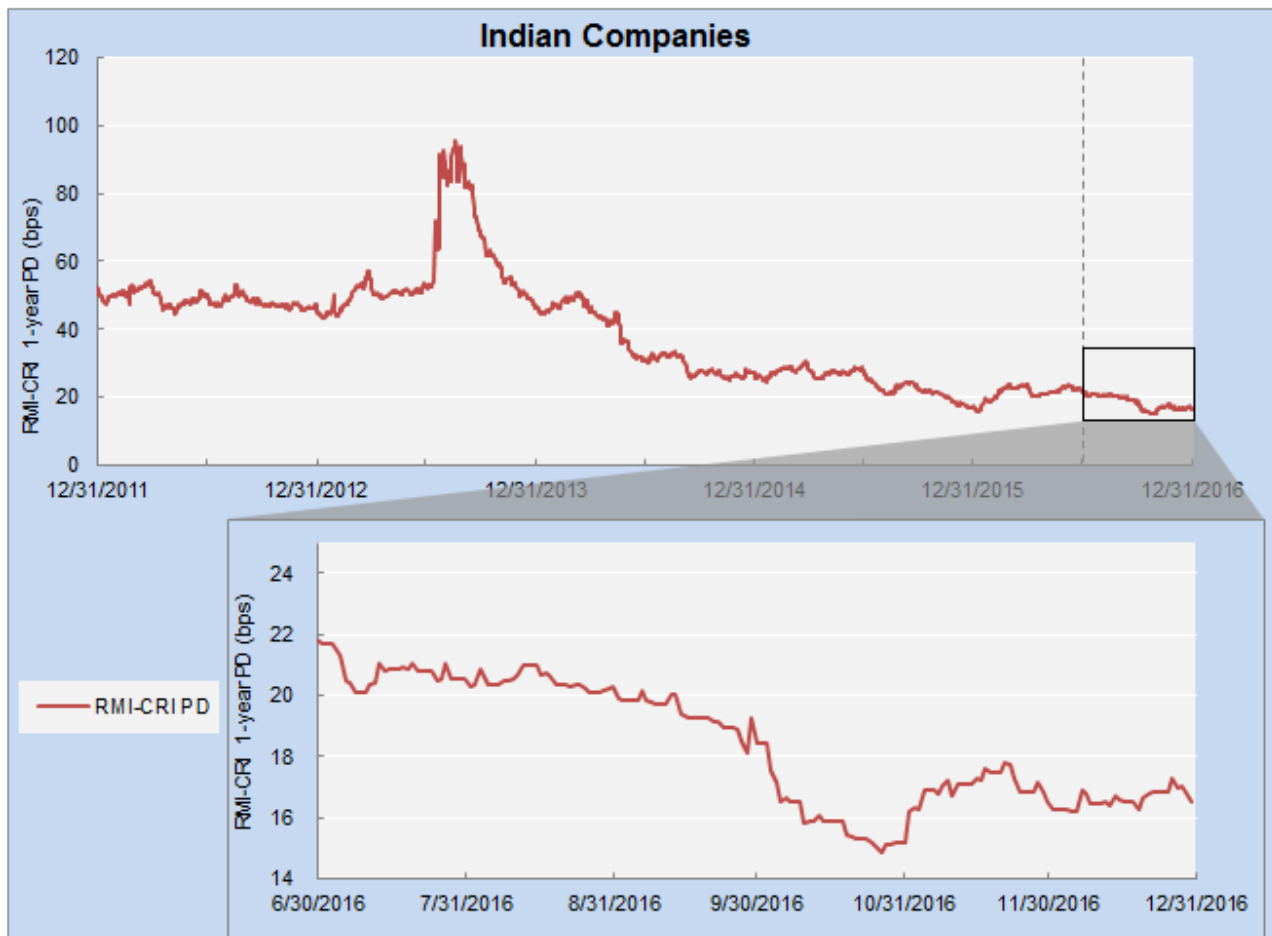
BRICS

Listed companies in the BRICS regions generally witnessed an improvement to their aggregate credit profiles during Q4. Russian companies showed the biggest improvement in the PD. Supported by stabilizing oil price, Russia is likely to end its recession in the upcoming quarter as the 0.2% contraction in 2016 is smaller than economists' forecast. Investor's confidence in Brazil was also on the rise despite long recession plaguing the country. Total foreign direct investment in 2016 was higher by 6% from that of 2015, resulting in overall stronger Real last year. China's economy grew 6.7% in 2016, the lowest since 1990. China's National Bureau of Statistics affirmed the reliability of the figures after local officials in Liaoning province admitted to inflating GDP figure from 2011 to 2014. India's demonization introduced in November 2016, on the other hand, is expected to slow growth as the policy triggered a serious cash shortage, constraining business activities in the country.



Indian Companies

The aggregate 1-year RMI PD for Indian companies remained stable during the fourth quarter. Economic activity picked up in India but inflation headwinds had surfaced which could negatively affect the credit profiles of Indian firms. Money markets were briefly disrupted with a demonetisation effect during Q4. The demonetisation may have a short term adverse impact on the firms' credit quality. Funding conditions remained stable during Q4 as the central bank kept target rates unchanged. However, the default risk for Indian companies is skewed towards the upside as external demand for exports has dropped and structural regulatory changes are underway.



Economy

- India's real Gross Domestic Product for Q3 grew at an annual rate of 7.3% against a 7.1% expansion in the same quarter last year. Sectors that grew over 7% YoY include manufacturing, financials and transport. The mining sector however, continued its decline after posting a growth rate of -1.5% during Q3. The World Bank cut the country's growth forecast for 2017 primarily because consumers tightened spending after November's currency invalidation^{1,2}
- Industrial production expanded in the first two months of Q4 but contracted in December as the Nikkei India Manufacturing PMI dropped to 49.6 from 54.4 in October. The PMI increased slightly to 50.4 in January on the back of rising order books. Despite witnessing higher orders, respondents to the survey said that input costs have reached the highest level since August 2014.³

- The annual rate of inflation, based on monthly wholesale price index, surged to an annual rate of 5.25% in January after declining to an annual rate of 3.39% for the month of December. The wholesale price index climbed to its highest level in 2.5 years as fuel prices climbed upwards. Crude oil prices have increased nearly 18 percent since November last year while the Rupee continued to fall.⁴
- India's current account deficit (CAD) widened slightly to USD 3.4bn (0.6% of GDP) in Q3 from USD 0.6bn (0.1% of GDP) in Q2. The YoY contraction in the current account deficit was due to a lower trade deficit (USD 25.6bn) brought about by a larger decline in merchandise imports relative to exports. Transfer receipts, mainly representing remittances by Indians employed overseas declined 10.7 percent from a year ago.⁵
- During Q4, the Indian Rupee (INR) weakened 1.97% against the US dollar. The US Federal Reserve raised interest rates in December and indicated that rates would rise further in 2017. The INR weakness likely resulted from foreign portfolio outflows during the quarter as USD 76.8bn were withdrawn from debt and equity markets during Q4.⁶

Monetary

- According to the bi-monthly monetary policy statement on Feb 8 2017, the RBI kept the policy rate (repo rate) at 6.25%. The reverse repo rate under the liquidity adjustment facility was also kept at 5.75% and the Bank Rate at 6.75%.⁷
- The large overhang of liquidity consequent upon demonetisation weighed on money markets in December, but from mid-January rebalancing has been underway with expansion of currency in circulation and new bank notes being injected into the system at an accelerated pace. Throughout this period, the Reserve Bank's market operations have been in liquidity absorption mode.⁸
- The central bank expects inflation excluding food and fuel to set a floor on further downward movements in headline inflation and trigger second-order effects. Inflation is projected to be in the range of 4% to 4.5% in the first half of 2017 and in the range of 4.5% to 5% in the second half of 2017.⁹

Funding & Liquidity

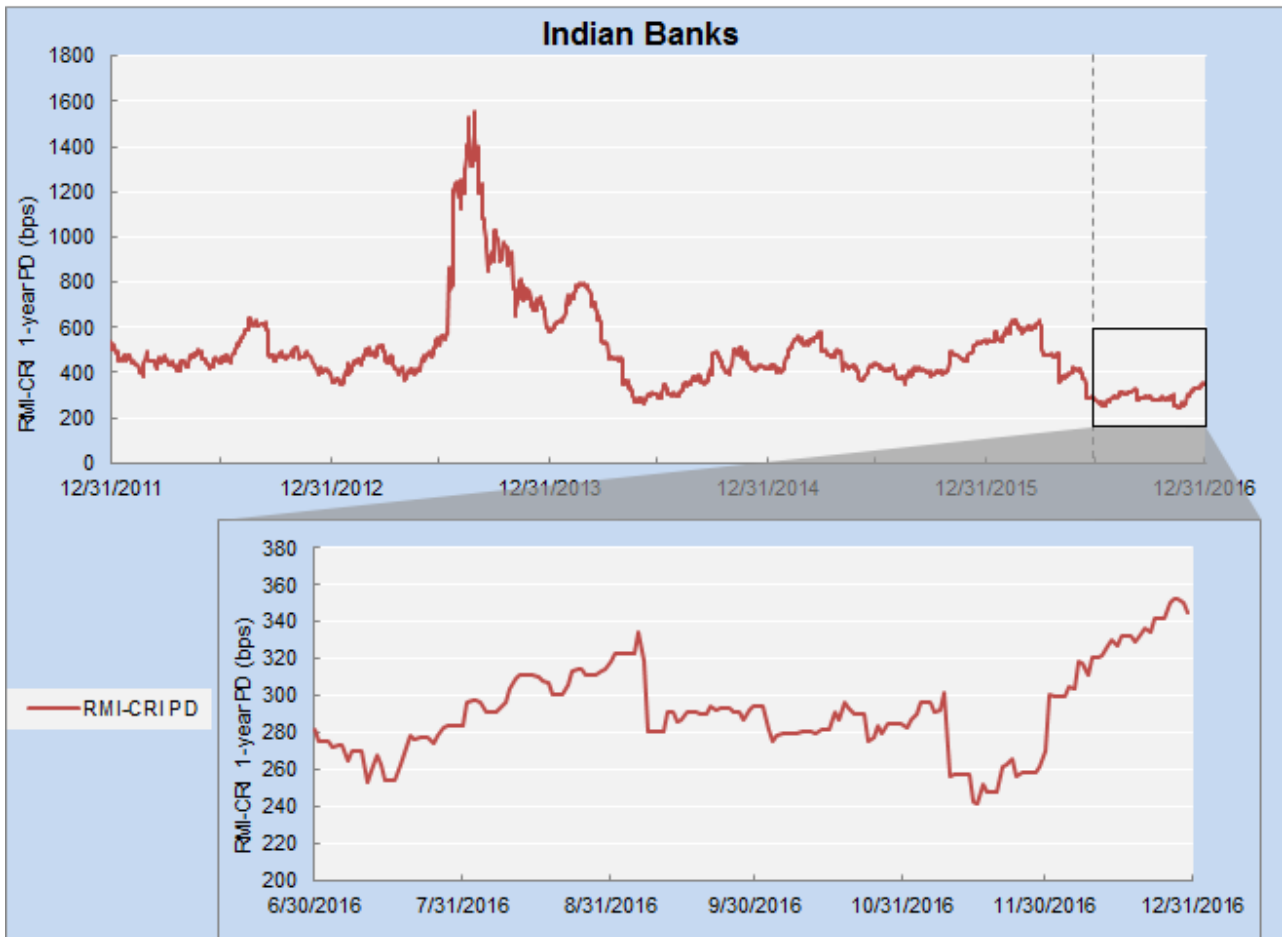
- Yields on India's 10-year government sovereign bonds declined to 6.515% at the end of Q4 from 6.515% as of Sep 30, 2016 as the central bank kept rates unchanged.
- Regulators are taking steps to boost liquidity in the corporate bond market. According to the Securities and Exchange Board of India, the primary market for corporate bonds has been increasing since 2007, but the liquidity in secondary market is low. To reduce the fragmentation in the bond market, the regulator is proposing to allow issuers to consolidate and reissue bonds.¹⁰

Sovereign Credit Ratings

- Moody’s, Fitch and S&P kept their ratings on the sovereign bonds of India at Baa3, BBB- and BBB- respectively in Q3. Moody’s has a positive outlook on the issuer while Fitch and S&P have stable outlooks on the country.
- India has questioned the methodology used by credit rating agencies, asking why the country’s credit rating did not change even as growth and fundamentals have improved.¹¹

Indian Banks

The aggregate 1-year RMI PD for Indian banks increased during the fourth quarter of 2016. Public sector banks reported record low earnings due to bad debt. Non-performing loans within the sector could continue its upward path thereby impacting the banks’ asset quality. Financial reform to withdraw liquidity could lead to short term negative effects for banks as there is a loss of wealth for individuals and companies who do not report income. The reforms will benefit lenders in the long term but the outlook for Indian banks within the next few months is negative.



Profitability

- Many leading public sector banks, including Bank of Baroda, Bank of India and IDBI Bank reported their worst quarterly loss in Q4. 11 public sector banks reported an overall INR 128bn loss for the quarter as banks’ performance was dragged down by higher provisions and bad assets.¹²

- Non-financial borrowings increased 15% to INR 3.4tn on Dec, 20 from INR 2.94tn at the end of Q3. Other liabilities such as time deposits with non-financial institutions increased to INR 5.06tn in Q4 from INR 4.59tn in Q3.¹³
- The Credit-Deposit ratio for the banking system declined from 74.14% on Sep 30, 2016 to 69.87% on Dec 23, 2016. This was due to a large rate of increase in aggregate deposits from INR 101tn to INR 105tn during the fourth quarter.¹⁴

Funding & Liquidity

- The weighted-average call money rate, the interest rate on short-term finance repayable on demand, declined to 6.12% as of Dec 30, 2016 compared to 6.43% as of September 30, 2016. The call money rates were generally lower than the repo rate during Q4, indicating a stable banking system.¹⁵
- The amount of cash on the balance sheet of Indian banks increased significantly from INR 623bn in Q3 to INR 1.41tn on Dec 23. The demonetisation move to invalidate the old 500 and 1000 INR notes resulted in a large influx of deposits into banks.¹⁶
- 1-year deposit rates likely declined in Q4. According to the State Bank of India's 1 year deposit rate, interest rates were lowered to 4.00% on Nov 24, 2016, from 7.15% in Q3.
- During Q3, the RBI withdrew a total of INR 25.30tn from the banking system via liquidity operations, with as much as INR 2.6tn on Dec 10, 2016. The monthly withdrawals increased from INR 1.77tn in October to INR 16.8tn in December. The Reserve Bank of India conducted liquidity operations consistent with the liquidity management framework put in place in April 2016, progressing from ex ante liquidity conditions to close to neutrality. Surplus liquidity should decline with progressive remonetisation.^{17,18,19}

Asset Quality

- Gross non-performing loans amounted to INR 7tn at the end of Q4, which doubled the amount in September 2015. Private sector bank NPAs accounted for INR 804bn while the amount of NPAs on public sector balance sheets were INR 6.2tn.²⁰
- While private banks have seen a significant increase in bad loans, public sector banks are more vulnerable as a higher proportion of their books have gone bad. Some of the public banks also have low capital adequacy ratios which makes it difficult for them to make adequate provisions against bad loans.²¹

¹Nov 31, 2016, [Estimates of Quarterly Gross Domestic for the Second Quarter \(July-September\) 2016-2017](#), Ministry of Statistics and Programme Implementation, mospi.nic.in

²Jan 16, 2017, [India Is No Longer the Worlds Fastest-Growing Large Economy, IMF Says](#), The Wall Street Journal, <http://blogs.wsj.com>

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⁷Feb 08, 2017, [Sixth Bi-monthly Monetary Policy Statement, 2016-17 Resolution of the Monetary Policy Committee \(MPC\)](#), Reserve Bank of India, The Reserve Bank of India, rbi.org.in

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- ¹²Feb 14, 2017, [Public sector banks report highest ever loss of Rs 12,000 crore as bad loans mount](#), DNA India, <http://www.dnaindia.com>
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- ¹⁸Jan 2017, [Reserve Bank of India Bulletin - January 2017](#), Reserve Bank of India, rbi.org.in
- ¹⁹Feb 2017, [Reserve Bank of India Bulletin - February 2017](#), Reserve Bank of India, rbi.org.in
- ²⁰Feb 16, 2017, [Banking Scorecard: Who Was Hit The Hardest By The Asset Quality Review?](#), Bloomberg, <https://www.bloomberg.com/>
- ²¹Feb 16, 2017, [Banking Scorecard: Who Was Hit The Hardest By The Asset Quality Review?](#), Bloomberg, <https://www.bloomberg.com/>

Chinese Companies

China managed to exceed market expectation by lodging 6.8% GDP growth YoY in the fourth quarter of 2016 even though Chinese firms' credit quality deteriorated slightly during the same period. The 1-year aggregate PD for Chinese firms increased slightly in Q4 2016. Amid global economic slowdown and rising trade protectionism, China's exports and imports came in below expectations in December. The central bank in China maintained its benchmark interest rate and reserve requirement ratio, while foreign exchange reserves decreased. At the end of December, due to the central bank's tightening liquidity stance, China's primary rates continued to increase. In order to maintain growth momentum and contain financial risks at the same time, the central bank moved away from traditional monetary tools such as cutting bank reserve requirements to using medium term lending program which channels low-cost funds into banks. The government also continued to use longer tenors and more expensive reverse repo to reduce dependency on cheap overnight borrowing and to curb leverage in the bond market.



Economy

- The Chinese economy advanced 6.8% YoY in the fourth quarter of 2016, as compared to a 6.7% growth in the previous three quarters, while exceeded market expectations of a 6.7% growth. The growth was supported by stronger consumer spending, higher government expenditure and robust bank lending. Fixed assets investments grew by 8.1% and total retail sales of consumer goods rose by 10.4%. Consumption accounted for 64.6% of China economy, while investment and net exports contributed +42.2% and -6.8% of growth of the economy. The government expects the country economy to grow 6.5% in 2017.²²
- Consumer prices in China rose 2.1% YoY in December 2016. Politically sensitive food

prices up by 2.4%, non-food cost rose at a slower 2%. For the whole year of 2016, inflation was 2%, below the government target of 3%.²³

- China's official unemployment rate stood at 4.02% down from 4.04% three months earlier. The National Bureau of Statistics mentioned that 13.14mn jobs were created in 2016 exceeding the whole year target of 10mn.²⁴
- The China's Caixin manufacturing purchasing managers index (PMI) rose to 51.9 in December 2016, from 50.1 in September, with manufacturers seeing the quickest rate of output expansion for nearly six years. Manufacturing PMI in China averaged 49.49 from 2011 until 2016, reaching an all-time high of 52.30 in January of 2013 and a record low of 47.20 in September of 2015.^{25,26}
- Though investment in fixed assets remained sluggish, real estate investment showed signs of improvement. China's fixed-asset investment growth in 2016, a crucial driver of the economy, increased by 8.1% YoY reaching CNY 59.6tn, down from 10.0% growth last year. Meanwhile, the growth rate of real estate investment increased by 6.9% in the first three quarter in 2016 reaching CNY 10.2tn, up from a 5.8% growth rate between January to September 2016 and up from 1.0% in 2015.^{27,28}
- China's exports fell more than expected in December as global trade slows while the growth in imports also slowed down. Exports fell by 6.1% YoY while imports rose by 3.1% YoY. Trade surplus was registered at USD 40.82bn. In terms of USD, Reuters poll of analysts expected a 3.5% decrease for exports and a 2.4% increase for imports on a YoY basis as well as the monthly trade surplus of USD 46.5bn. However, the Greater China Chief Economist at Mizuho Securities Asia stated that there was no cause for concern as the drop in exports would not be so bad once the increase in Chinese annual wages as well as the yuan's relative strength against most currencies was factored in.²⁹

Monetary

- China's central bank continued to maintain its interest rate at 4.35% for 15 months. The central bank cut interest rates on 23 October 2015 for the sixth time in less than a year. The central bank continues to use various policy tools to maintain liquidity and ensure reasonable growth in credit financing.³⁰
- China's primary rates rose and were higher for a large part of the year driven by the central bank's liquidity tightening stance. The central bank drained a net CNY 245bn through open market operations on the week on December 30. The volume-weighted average rate of the benchmark seven-day repo went up higher as compared to these rates from a week earlier while the overnight Shanghai Interbank Offered Rate (SHIBOR) remained flat. The central bank has also been using longer tenors in market operations leading to more expensive reverse repo in order to reduce dependency on cheap overnight borrowing and curb leverage in the bond market.³¹
- The required reserve ratio continued to remain at 17% in Q4 2016 after cutting 0.5% in March. In a series of reductions, the central bank brought the reserve ratio down from its 2011 peak of 21.5%. The central bank moved away from traditional monetary tools such as cutting bank reserve requirements to using medium term lending program which channels low-cost funds into banks to maintain growth momentum and contain financial risks.^{32,33}

- China's foreign exchange reserves decreased by USD 41bn MoM to USD 3.011tn in December 2016, compared to a USD 69bn decrease in November and USD 45bn decrease in October. The foreign exchange reserves have been declining for the 6 months bringing the reserves to the lowest level since February 2011 as the central bank slow the CNY depreciation. Meanwhile, gold reserves had increased from 56.66 million fine troy ounces in November to 56.05 million in December 2016. Foreign Exchange Reserves in China averaged USD 890bn from 1980 until 2016, 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.^{34,35}

Funding & Liquidity

- 10-year government bond yield rose from 2.72% in September to 3.03% at the end of December 2016. 1-year government bill yield increased from 2.19% to 2.64% over the same period.³⁶
- The 3-month 5-day average SHIBOR had increased steadily from 2.80% on 30 September 2016 to 3.27% on 30 December 2016.³⁷
- The value of new yuan loans provided by the Chinese banks stood at CNY 1.04tn in December 2016 as compared to CNY 794.6bn in November 2016 and beating market expectation of CNY 680bn. Banks Balance Sheet in China averaged CNY 593.23bn from 2004 to 2016, reaching an all-time high of CNY 2.51tn in January 2016 and a record low of CNY -32.10bn in July 2005.³⁸

Policy

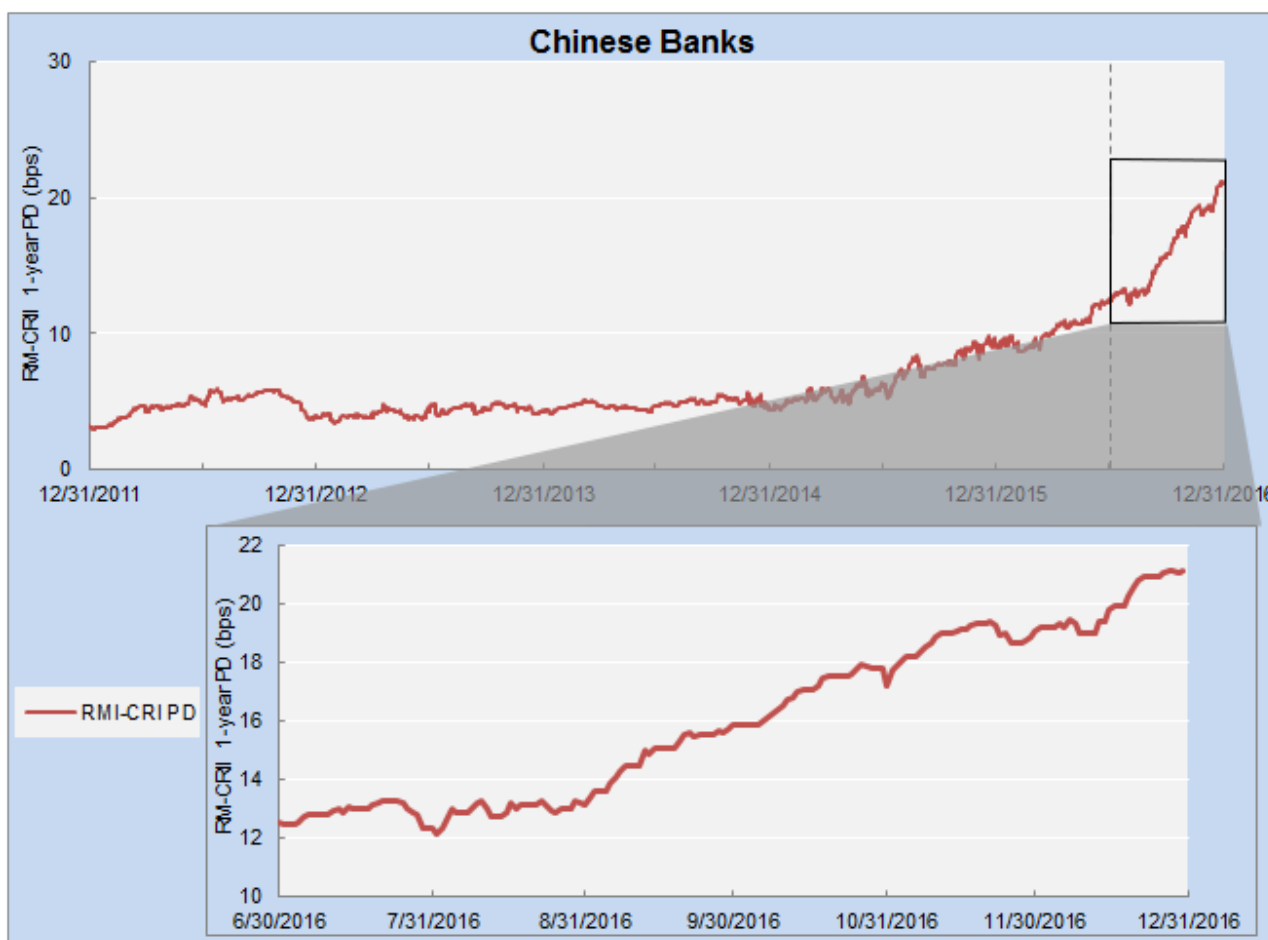
- As China economy grew at 6.8% in this quarter, policymakers are planning for a prudent and neutral monetary policy and proactive fiscal policy in 2017 to ensure a sustainable expansion with room for additional supply-side structural reforms. Preventing and controlling financial risk will be a priority to address the debt binge that has inflated asset bubbles. An economist from Commerzbank stated that the stabilization of the economy was largely due to the rally in the property market which triggered concerns of an asset bubble. Therefore in 2017, China will be putting more effort to balance growth, financial risks and external challenges especially from trade relations with the United States. New money supply management tools are also introduced as an alternative to broad easing that may weaken the yuan.³⁹

Sovereign Credit Ratings

- Fitch maintained rating A+ on the Chinese government with a stable outlook while Moody's and S&P credit rating for China stood at Aa3 and AA- with a negative outlook.

Chinese Banks

The credit quality of Chinese banks continued to weaken in the fourth quarter of 2016. Non-performing loans continue to increase in Q4 2016 and PBOC is focused on reducing financial risk in the banking sector. The central bank has mandated banks to undergo debt-for-equity swaps agreement and created new frameworks for banks to assess their financial risks by including off-balance sheet items such as wealth management products. Though profitability among the largest banks are expected to remain flat in 2016, it is expected to recover with stabilising net interest margins and the restructuring of corporate debt. The amount of liquidity injected by PBOC has also increased on a quarter on quarter basis, from September to December, to boost liquidity and maintain growth momentum.



Profitability

- Since record write-offs for bad loans and shrinking margins amounting to 30 and 40 bps in 2016 caused by six interest rate cuts in 2016, China’s big state-owned banks like Industrial and Commercial Bank of China and China Construction Bank Corp have seen flat profits. However, banks have been undergoing a major restructuring of their corporate debt. The banks have adopted government-mandated debt restructuring measures like debt-for-equity swaps agreement totaling more than CNY 300bn with big state-owned groups such as coal, energy and steel firms. Net interest margins are also seen to stabilize in 2017 as the impact of rate cuts fades.⁴⁰

Funding & Liquidity

- China's central bank injected CNY 733bn to financial institutions via its medium-term lending facility (MLF) and CNY 135bn via standing lending facility (SLF) in December. The outstanding amount of MLF and SLF were CNY 3.45tn and CNY 129bn respectively at the end of December. The central bank had also utilised the pledged supplementary lending facility (PSL) programme to boost liquidity to specific sectors by offering low-cost loans to selected lenders. The facility stood at CNY 2.05tn at the end of December.⁴¹

Regulations

- China's banking regulator instructed commercial banks to improve their risk and compliance management with regards to offshore investment projects, anti-money laundering supervision and anti-terrorist financing activities. It also issued guidelines to strengthen the banks' control and management of funding for outbound investment. This is with regards to China's plan to slow capital outflows after a strong dollar and slow economic growth push the yuan down 7% in 2016. Banks were also instructed to improve credit risk management of cross-border business and improve its post-loan management.⁴²
- The China's central bank has tasked the banking sector to strictly control new loans especially in the mortgage lending sector in order to curb excess leverage in the financial system. This tightening trend has also moved from shadow banking to on-balance sheet loans. Banks who do not follow the new lending rules will be penalised by lowering the interest rates on reserves that is deposited with the central bank. Chinese leaders are concerned about runaway property prices which is why other than mortgage curbs, city-specific measures such as raising down-payment requirements are also encouraged.⁴³
- The People's Bank of China will include wealth management products held as off balance sheet items in its framework for gauging financial risk starting from Q1 2017. This will help the central bank to emphasize on lenders' requirement to control risk and maintain sufficient capital buffer. The rapid growth of wealth management products has pose risk to the economy and thus setting up on its monitoring is necessary to properly evaluate the potential threat it can cause to the financial system.⁴⁴

Asset Quality

- The China Banking Regulatory Commission announced that the non-performing loan ratio of commercial banks in China came to 1.81% up from 1.76% in the third quarter. The regulator also highlighted to give priority to financial risk prevention and control in 2017 by refining the classification of credit assets and intensifying the screening of hidden risks. Banks have also took on non-performing loans disposal through arrangements like non-performing asset securitization and debt-to-equity swaps. Overall, the banking sector clocked a net profit of CNY 2tn for 2016.⁴⁵

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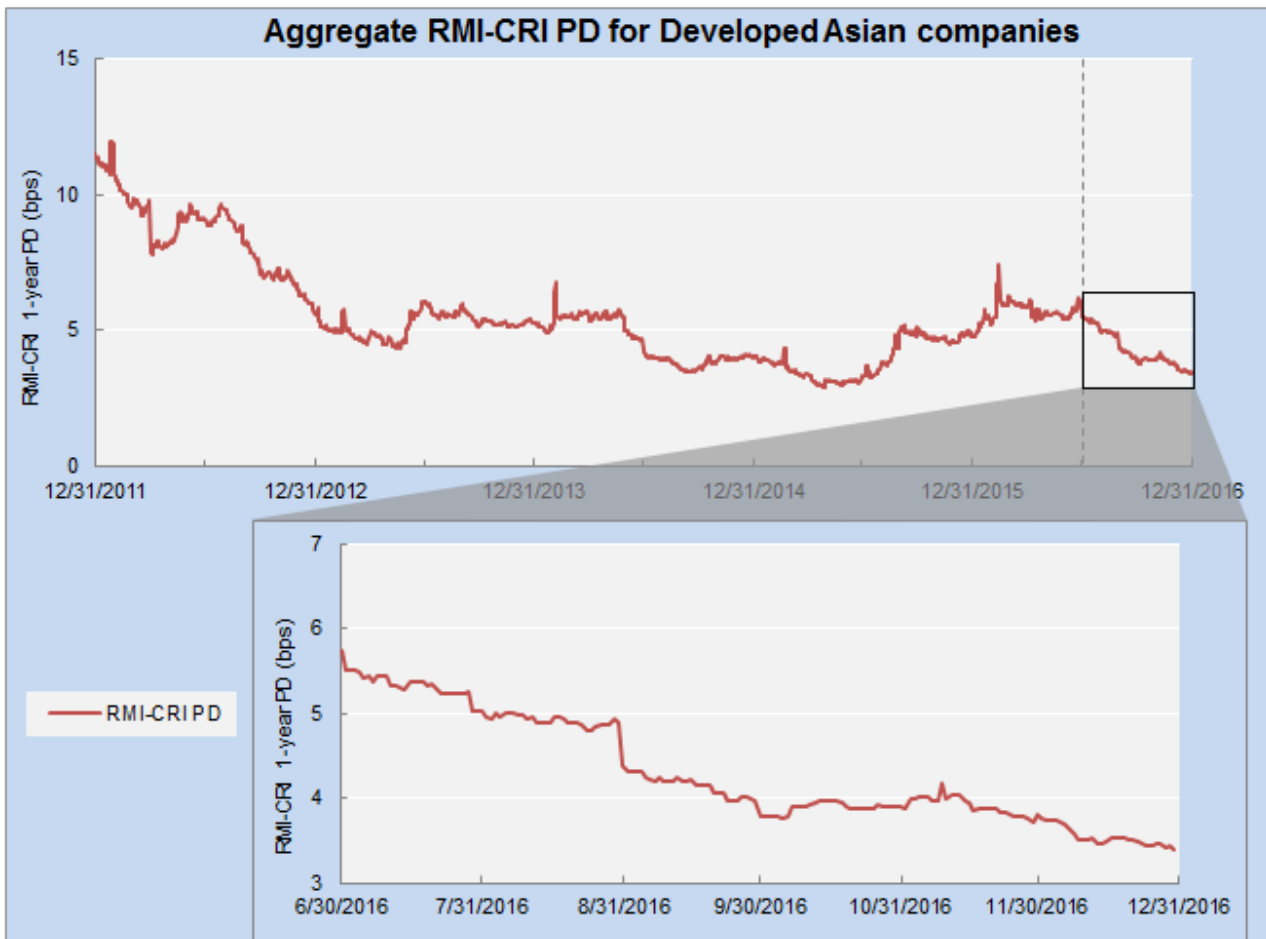
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- ⁴⁴ December 19, 2016, [China Plans to Add Off-Book Wealth Products to Risk Assessment](#), Bloomberg, <http://www.bloomberg.com>
- ⁴⁵ January 12, 2017, [Commercial banks' NPL ratio moves higher in Q4](#), China Daily, <http://www.chinadaily.com>

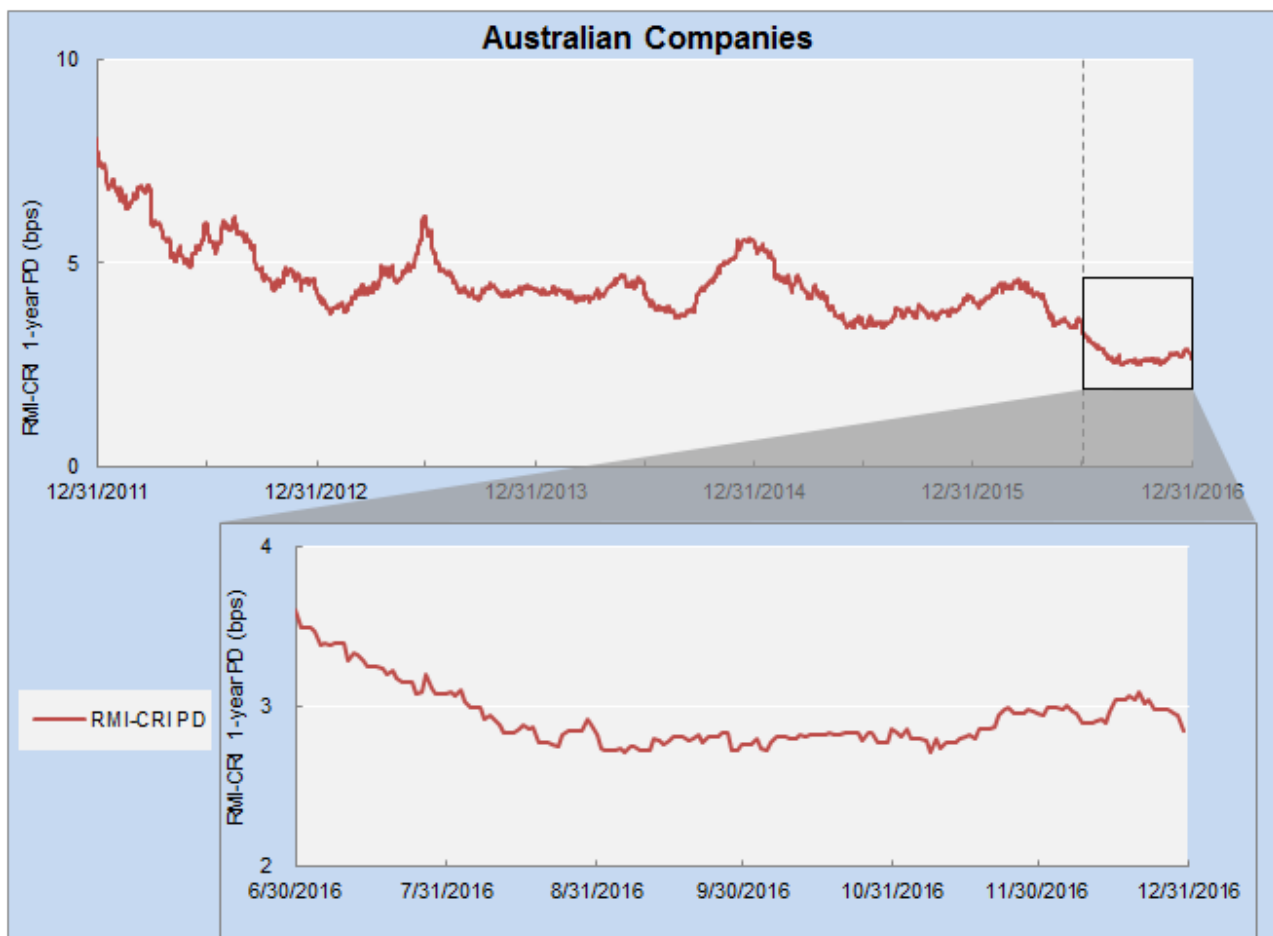
Asia-Pacific - Developed economies

The RMI-CRI aggregate 1-year PD for listed companies in the developed Asia Pacific continued to strengthen in Q4. Japan, South Korea, and Singapore posted 1%, 2.7%, and 2% growth respectively for the whole of 2016. Weaker yen, caused by Donald Trump’s victory, helped to boost Japan’s economic growth during the fourth quarter while pick-up in the manufacturing sector helped to boost economic growth in Singapore. On the other hand, South Korea’s economic growth slumped in the fourth quarter as construction investment and private consumption stalled in light of deepening corruption scandal. Despite modest growth, uncertainties from US trade policies are likely to put pressure on growth of developed economies in Asia Pacific. Trump’s decision to withdraw from the Trans-Pacific Partnership deal in November might cast greater uncertainty over future trade relationship between US and developed Asian economies.



Australian Companies

The aggregate 1-year RMI PD for Australian companies remained stable during Q4 2016 after a declining trend in Q3 2016. Based on Q3 data, economic growth dipped with a slowdown in private investment into infrastructure and public capital expenditure weighing upon the credit outlook for Australian companies. While unemployment rate remained constant, manufacturing and services expanded. Going forward, the credit outlook for Australian firms remains dependent on a rebalancing of the economy as the mining boom fades. A lower exchange rate has provided room for the manufacturing sector to provide long-needed support to growth, after two years in the doldrums. Household and business savings could help support investment in other sectors of the economy.



Economy

- Economic growth declined by 0.5% from Q2 2016 to Q3 2016, compared to 0.5% growth from Q1 2016 to Q2 2016. The Australian economy grew 1.8% YoY. Bloomberg forecasts Australia's 2016 GDP growth to be 2.9%, beating its 2.4% growth in 2015.⁴⁶
- The GDP contraction in Q3 was driven largely by slumping private investment into infrastructure and public capital expenditure. Weak private investment contributed 0.3 percentage points to the GDP decline while falling public capital expenditure caused a reduction of 0.5 percentage points off growth in the September quarter.⁴⁷
- The Reserve Bank of Australia's (RBA) had left the cash rate unchanged at 1.5%, amid global growth rising at a lower than average pace. The Australian economy is in transition, with inflation expected to remain low for an extended period before rising to normal levels.⁴⁸

- The unemployment rate stood at 5.7% in December, 0.1 percentage points lower than a year before. While the monthly employment rose by 0.1% between November and December 2016, it remains below the monthly average growth rate of 0.15% over the past 20 years. Australia's labour force participation rate was 64.6% in December.⁴⁹
- The Australian Performance of Manufacturing Index (PMI), as reported by The Australian Industry Group, stood at 55.4 in December, an increase of 1.2 points from November. Expansion in the food & beverages, petroleum, coal and chemicals & rubber products, non-metallic mineral products and machinery and equipment sectors contributed to the rise. The equivalent index for services (PSI) rose by 6.6 points to stand at 57.7 points in December, the highest monthly result in almost a decade. However, the Australian Performance of Construction Index (PCI) was at 47.0 points in December, a third consecutive month of contraction.^{50,51,52}
- Key export prices increased 3.5% in Q3 2016, relative to the previous quarter. However, key export prices were still 5.4% lower from the corresponding 2015 quarter. Edible oils and mineral fuels posting the highest increase in prices in this quarter. Crude materials also posted a 4.4% increase, while Australia's key export coal has doubled in price since the start of the year due to slowdown in supply from China, Indonesia and the U.S.^{53,54}

Monetary Policy

- The Reserve Bank of Australia (RBA) lowered its benchmark interest rate to a record low of 1.5% in August to stimulate economic activity, with analysts predicting the rate could be as low as 1% by mid-2017. Consumer sentiment is waning on the effectiveness of the policy, and whether the RBA can still continually utilize the interest rate as an effective tool to affect money supply.^{55,56}

Funding & Liquidity

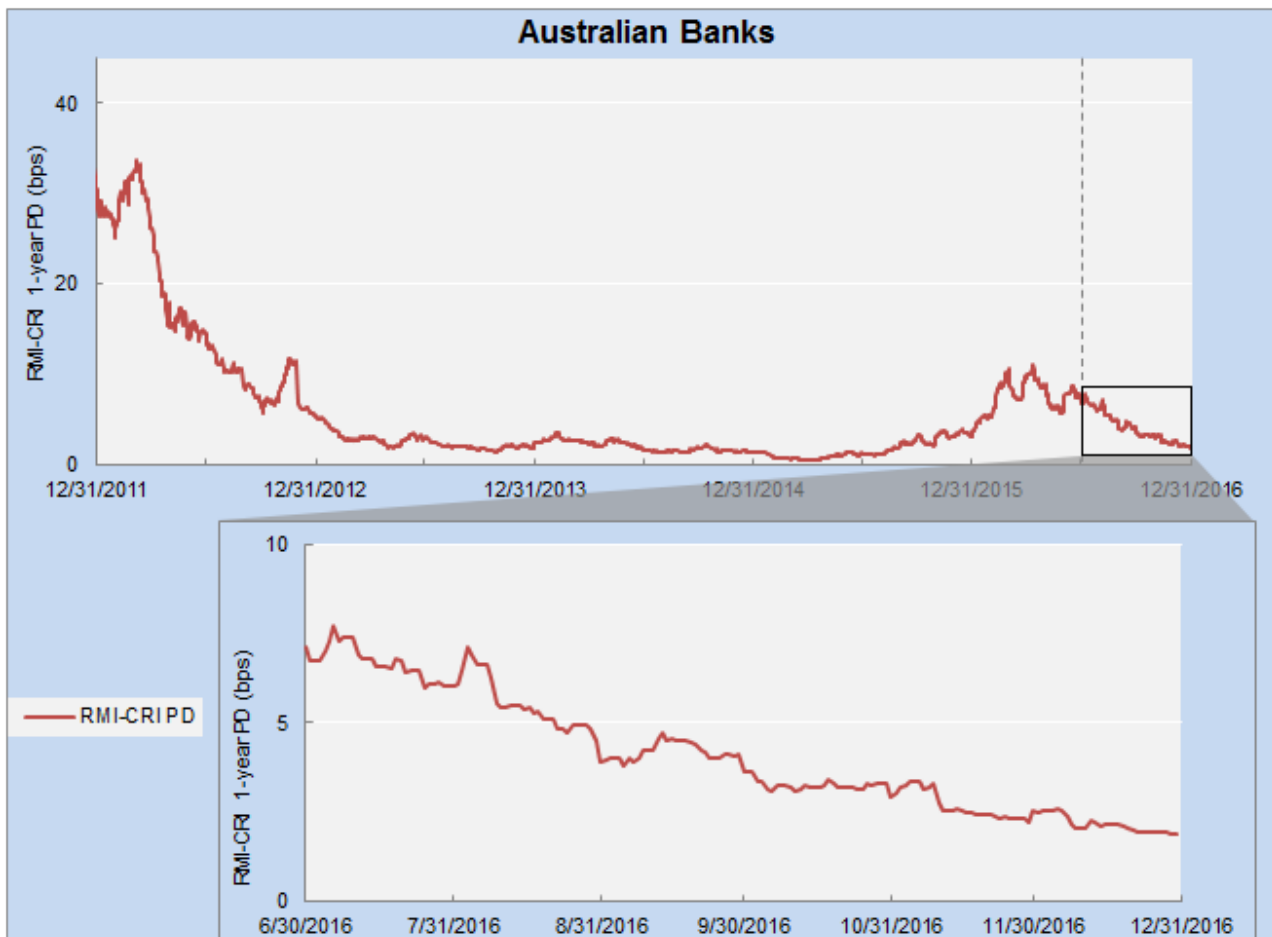
- Yields on 10-year Australian government bonds rose steadily throughout the quarter. The previous quarter reported a high of 1.99% in September 2016, while yields in December was 2.79%, 129 basis points higher than the RBA lending rate.⁵⁷
- Indicative lending rates to large businesses decreased, with the last reported figure in Sep 2016 being 3.95% - a dip from 4.05% at the start of the year. 3-year fixed lending rates to small businesses rose to 5.30% throughout the quarter, an increment from the 5.25% average throughout Q3 2016. Rates on loans to larger businesses have historically followed fixed rates on small business loans, which are reported monthly.⁵⁸
- Average commercial lending during the quarter increased, with total loans to businesses up by 1.7% from Q3 2016, while total lending to individuals was higher by 1.9% quarter-on-quarter.⁵⁹

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.⁶⁰

Australian Banks

The aggregate 1-year RMI PD maintained its downward trend, declining through Q4 2016. The profitability of banks has improved but higher vacancy rates from higher supply and weaker demand for office properties, coupled with an oversupply of residential Australian real estate could pose a serious risk to lenders. The continued development of real estate and the tightened availability of financial credit could dampen the credit outlook of Australian banks. The rapid accumulation of household debt poses a risk to the financial sector.



Profitability

- Overall, earnings are likely to be constrained with growing headwinds in the near-term while the long-term outlook would be dependent on the success of an economic re-balancing away from mining investment. The 'Big 4' Banks in Australia, ANZ, NAB, Westpac and Commonwealth Bank posted aggregate profits of AUD 22.73bn for the 2016 financial year. Except Commonwealth Bank, all banks reported a slide in earnings YoY, with NAB being the biggest loser, plunging from AUD 6.34bn in FY2015 to AUD 352mn in FY2016.

Funding & Liquidity

- The banking sector had one 5-year issuance during Q4. The AUD 700mn issue by the Commonwealth Bank of Australia had a coupon rate of 2.75% and was rated Aaa by Moody's. The last ask yield on the note was 3.23% on Feb 17, 2017.
- According to the RBA, the Liquidity Coverage Ratio of Australian banks was 120 percent, which was above the requirement of 100 percent. From the start of 2018, banks will adhere to the Net Stable Funding Ratio requirement - a Basel III initiative to improve the liquidity of banks.

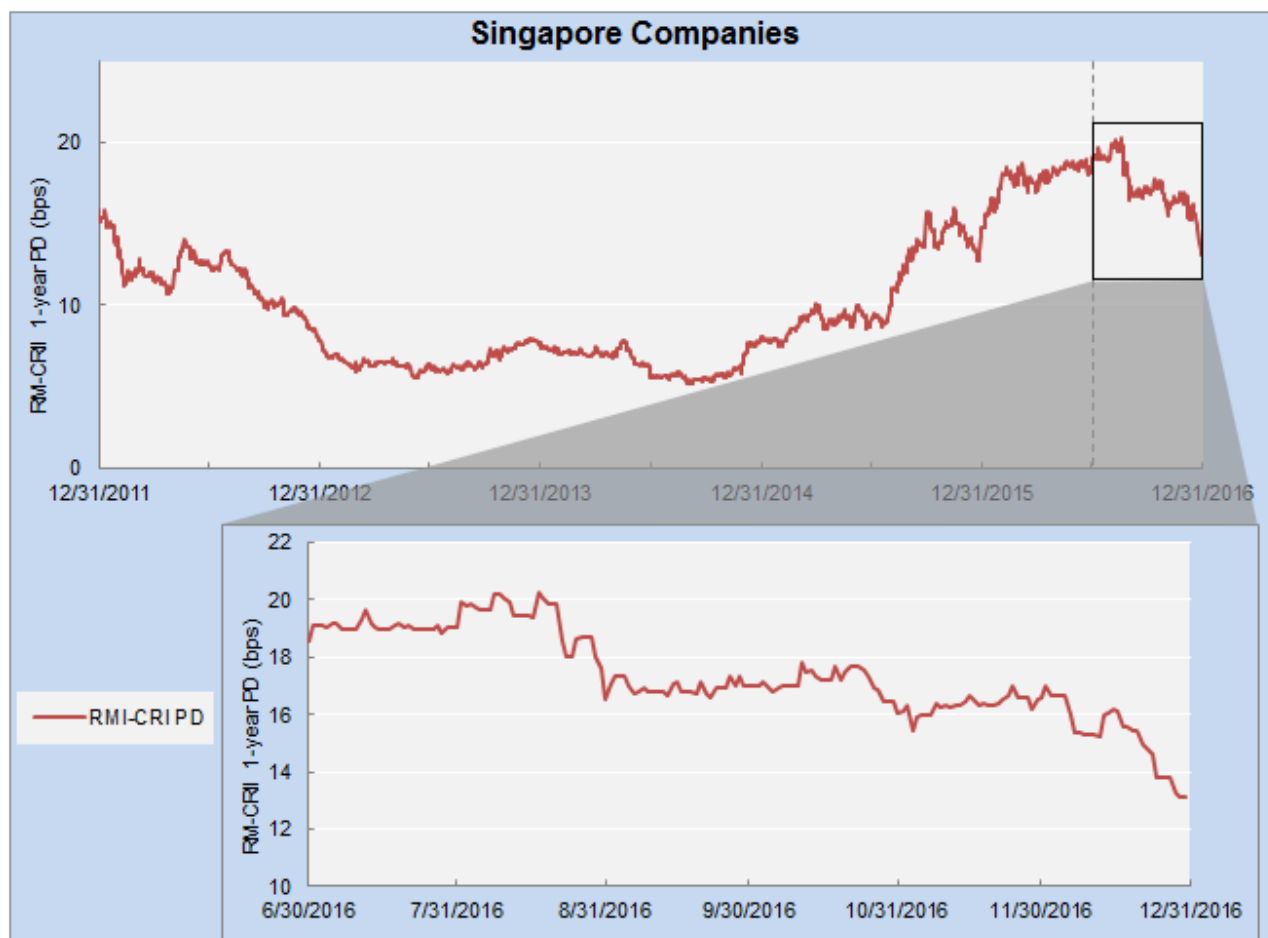
- Banks are now less exposed to wholesale funding markets, having significantly increased their share of deposit funding to around 60 percent of total funding.
- Australian banks have retained good access to wholesale funding markets and have issued a greater amount of bonds, reducing the need to borrow over the next few months.

Asset Quality

- Besides Moody's downgrade of the outlook of the big four Australian Banks, Fitch also downgraded the outlook on the Australian bank sector to negative. The downgrade from Moody followed the growing headwinds and the rising bad debts within parts of the banks' lending portfolios, while Fitch noted the rising challenges that could weigh down on the banks' asset quality.^{61 62}
- ⁴⁶ 42711 5206.0 - Australian National Accounts: National Income, Expenditure and Product, Jun 2016, Australian Bureau of Statistics, abs.gov.au
- ⁴⁷ 42711 Australian economy shrinks 0.5pc in September quarter, worst fall since global financial crisis, ABC News, abc.net.au
- ⁴⁸ 42710 Statement by Philip Lowe, Governor:, Reserve Bank of Australia, rba.gov.au
- ⁴⁹ 42754 6202.0 - Labour Force, Australia, Dec 2016, Australian Bureau of Statistics, abs.gov.au
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- ⁵⁷ 42738 Capital Market Yields - Government Bonds - Monthly, Reserve Bank of Australia, rba.gov.au
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Singapore Companies

The RMI-CRI aggregate PD for Singapore firms generally improved during the fourth quarter of 2016, hovering around 14bps during the fourth quarter. The economy grew by 12.3% on a QoQ basis, after contracting by 0.4% in Q3. The reversal was mainly fueled by strong recovery in the manufacturing and services sector. In November, Singapore government announced that it would provide financing support for the offshore and marine sector to help struggling companies with their liquidity problems. Beset by falling oil price, many offshore marine companies have struggled to fulfil their debt obligations, sparking off widespread debt restructuring in the sector.



Economy

- For the whole year of 2016, Singapore economy expanded by 2%, slightly faster than 1.9% growth in 2015. In the fourth quarter, the economy grew by 2.9% YoY, up from 1.2% in the previous quarter. The manufacturing industry was the main contributor to the GDP growth as it expanded by 11.5% YoY in the fourth quarter. The recovery in the manufacturing sector was mainly driven by robust growth in the electronics and biomedical manufacturing sectors. The services producing industry also expanded 1% YoY in the fourth quarter, slightly faster than 0.4% increase in the previous quarter. The construction sector, on the other hand, contracted by 2.8% YoY, continuing a 2.2% contraction in the third quarter.⁶³

- Inflation rate rose stood at 0.2% in December 2016, led by higher prices of food, healthcare and education, compared to the year before. Food prices rose by 2% YoY, though it expanded marginally by 0.2% on a MoM basis. The price level of health care and education grew by 2.9% and 3.2% respectively in December 2016 from to the same period last year. On a MoM basis, prices of health care rose by 0.5% while there is no increase in education price level. Excluding the accommodation and private road transport components, the core inflation index was up by 1.2% on a YoY basis, as prices were higher in the food, health care, and education segments.⁶⁴
- The annual average unemployment in 2016 was the highest since 2010, standing at 2.1% in 2016 up from 1.9% in 2015. Total employment in 2016 also grew at its slowest rate since 2003, at an estimated increase of 0.4% compared to 0.9% increase in 2015. The slowdown was attributed to slower economic and local labour force growth. Redundancies, on the other hand, rose to 19,000, going up steadily since 2010. Local employment is estimated to have increased by 0.5% while foreign employment contracted by 0.2% in 2016, the first time since 2009. Growth occurred in many service sectors while declines mainly happened in the construction and marine sector.⁶⁵
- Survey results released by the Singapore Institute of Purchasing and Materials Management showed an increment of 0.4 point in December 2016 to 50.6 from the previous month. The increase in reading was attributed to an expansion in factory output, inventory holding, new orders and new exports.⁶⁶
- The seasonally adjusted retail sales declined by 1.9% on a MoM basis and 0.4% on a YoY basis in Dec 2016. Excluding motor vehicles, retail sales fell by 0.7% MoM while rising by 0.3% YoY. The total retail sales value in November 2016 was estimated at SGD 4.2bn, similar to the total retail sales value in December last year. The seasonally adjusted sales of food&beverage services in August 2016 fell by 2.2% MoM and 0.3% YoY. The total sales value of food&beverage services in August was estimated at SGD 695mn, lower than the SGD 698mn total sales of food&beverage services last year.⁶⁷
- Singapore's NODX grew by 9.4% YoY in December 2016, following a 11.5% expansion in the previous month, due to an increase in both electronic and non-electronic NODX. The top contributors to the NODX increase were China, Taiwan and Hong Kong.⁶⁸

Monetary

- MAS announced in October 2016 that it would maintain its monetary policy of halting the appreciation of the Singapore dollar. The policy stance of maintaining zero appreciation of the Singapore dollar came on the back of weakened growth in the Singapore economy. Additionally, the slow pick up of the rate of core inflation also contributed to the maintenance of its currency policy.⁶⁹

Funding & Liquidity

- Yields of 10-year Singapore government bonds rose to 2.47% on Dec 30 2016 from 1.78% on Sep 30 2016.

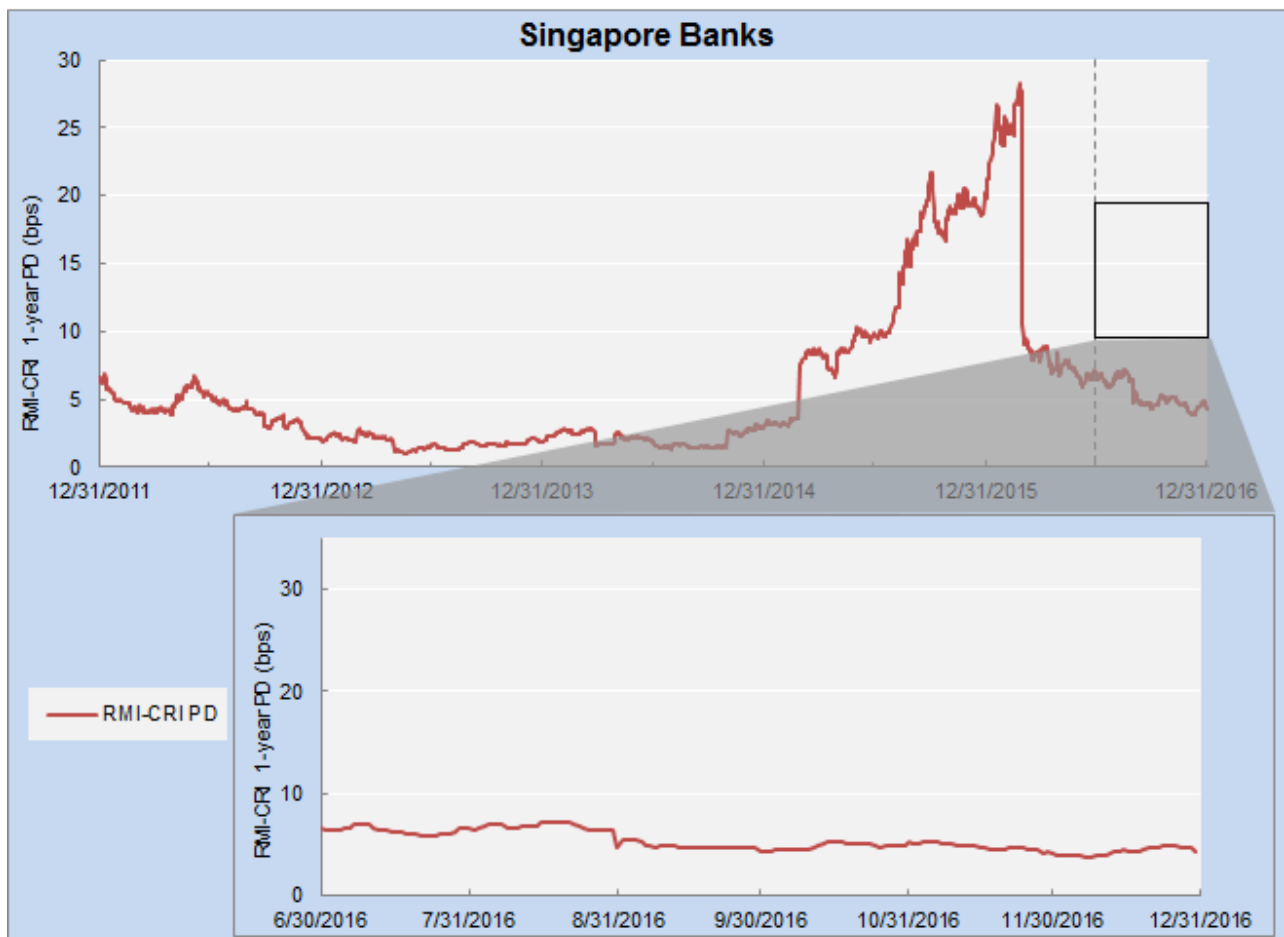
- Lending to non-bank customers rose from SGD 603bn in Q3 2016 to SGD 617bn in Q4. Total loans to businesses rose by more than SGD 12bn from a quarter ago while loans to consumers rose from SGD 248bn in Sep 2016 to SGD 250bn in Dec 2016.⁷⁰
- The amount of outstanding sovereign bonds increased by SGD 2.8bn to SGD 101bn in Q4 2016.⁷¹
- The prime lending rate stayed unchanged at 5.35% since January 2014.⁷²

Sovereign Credit Ratings

- All three major rating agencies kept their highest investment grade ratings for Singapore sovereign bonds over Q4 2016.

Singapore Banks

The performance of the three local banks deteriorated in the fourth quarter of 2016 amid flagging domestic economy and exposure to the ailing oil and gas industry. Amid stress in the energy sector, Singapore banks have set aside higher provisions, eating up into their profits. While bank deposit rates stayed flat during the period, the level of savings and lending to non-bank customers rose. Overall, the banks’ asset quality remained intact.



Profitability

- Singapore banks reported slump in profits in the fourth quarter of 2016. Quarterly net profits in DBS, OCBC, and UOB fell by 9%, 18%, and 6.2% from the same period last year. The slump was mainly attributed to slower credit growth amid weakening domestic economy and higher provisions set aside for bad loans. In Q4 2016, allowances for loans and other assets for DBS, OCBC, and UOB surged by 87%, 57%, and 272% YoY respectively from Q4 2015. Amid string of defaults in the oil and gas sector, Singapore banks' profitability have been brought down by their exposure to the industry. Despite headwinds, the three banks affirmed that the overall quality of their portfolio remain sounds.^{73,74,75}
- Data from the Monetary Authority of Singapore showed that the amount of corporate loans issued to non-bank customers increased by 2.31% to SGD 617.4bn at the end of Q4 2016 from the previous quarter.⁷⁶

Funding & Liquidity

- Total deposits in Singapore banks expanded by SGD 10.3bn in Q4 2016. Local currency deposits expanded by SGD 9.6bn, smaller than the previous quarter expansion of SGD 13.3bn, whereas foreign currency deposits increased by about SGD 731mn for Q4 2016.⁷⁷
- The fixed deposit rates remained unchanged during Q3 2016, with rates on 3-month deposits and 12-month deposits keeping at 0.19% and 0.84% respectively. The prime lending rate stayed at 5.35%.⁷⁸

Capital Levels & Regulations

- Banks' capital and reserves level fell to SGD SGD 83.1bn at the end of Q4 2016 from to SGD 84.8bn at the end of Q3 2016. On a YoY basis, the capital and reserves level was higher by 9.24%.⁷⁹

Asset Quality

- Loans placed under the "special mention" category increased slightly to 2.45% of total exposure as of the end of Q4 2016, from 2.39% in the quarter before. Overall, asset quality in banks was lower during the fourth quarter of 2016, as the composition of good-quality assets continued to decline. The percentage of loss exposure at local banks has also increased since last year. Total loss was 0.17% in Q4 2016 compared to 0.14% in Q3 2016.⁸⁰
- Asset quality of DBS, OCBC, and UOB continued to deteriorate in Q4 2016. OCBC reported 1.26% NPL ratio in Q4, up from 1.19% in Q3 2016 while DBS posted 1.4% NPL ratio, up from 1.3% in the last quarter. UOB's NPL ratio, on the other hand, declined from 1.5% in Q3 from 1.4% in Q4. Overall, the NPL ratios of the three banks in Q4 2016 were higher compared to the same period last year. The worsening asset quality was mainly attributed to the exposure to the oil and gas industry, which has been troubled by falling oil price.^{81,82,83}

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⁶⁴Jan 23, 2017, [Singapore Consumer Price Index, Dec 2016](https://www.singstat.gov.sg/), Statistics Singapore, <https://www.singstat.gov.sg/>

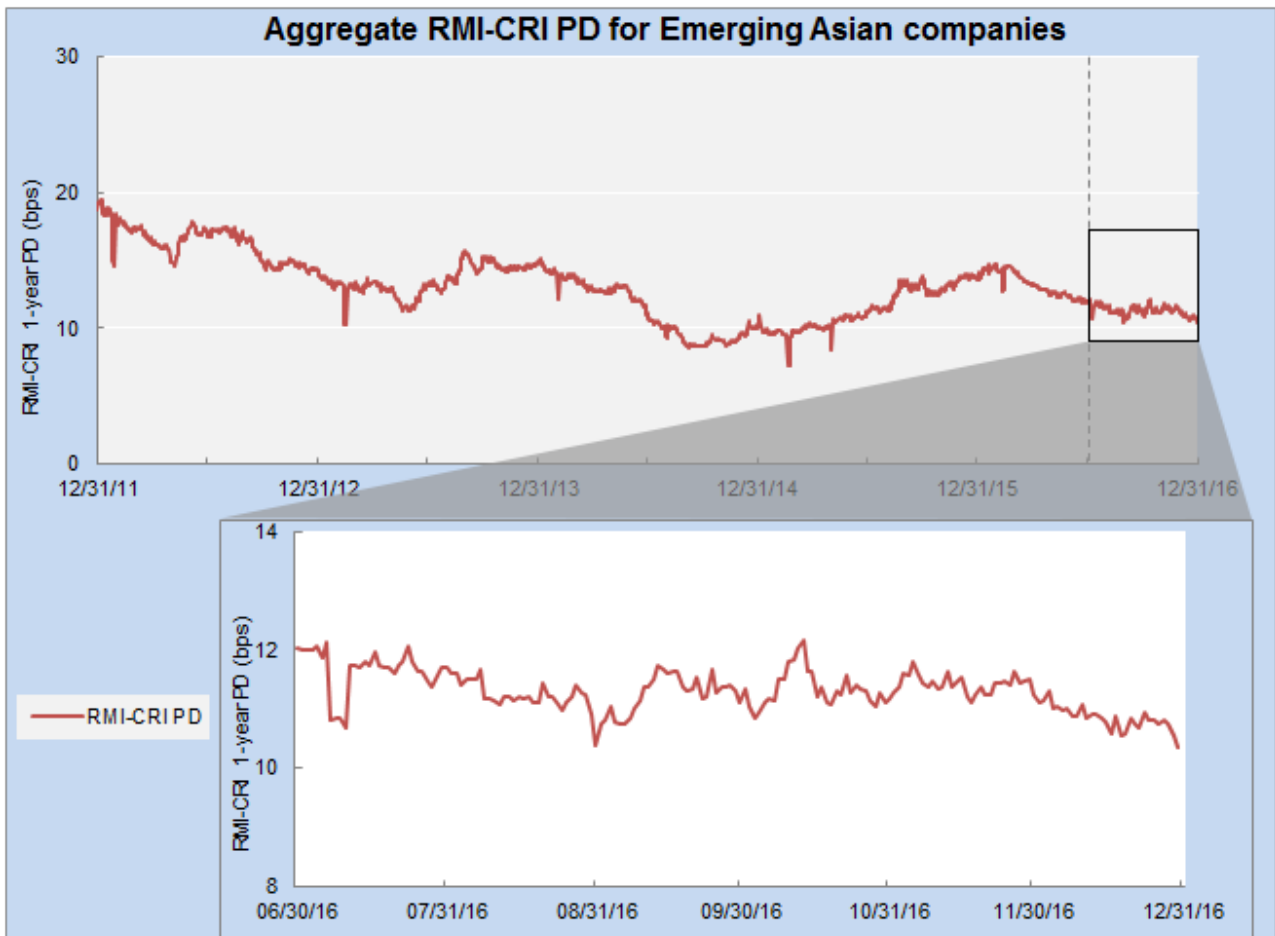
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- ⁷³ Feb 16, 2017, [UOB Group Full Year 2016 Financial Highlights](http://www.uob.com.sg), UOB, www.uob.com.sg
- ⁷⁴ Feb 17, 2017, [Strong operating performance in challenging environment](http://www.dbs.com.sg), DBS www.dbs.com.sg
- ⁷⁵ Feb 14, 2017, [2016 Full Year Results Presentation](http://www.ocbc.com), OCBC Group, <http://www.ocbc.com>
- ⁷⁶ Dec 2016, [Banks: Loans and Advances of DBUs to Non-Bank Customers by Industry](https://secure.mas.gov.sg/), MAS, <https://secure.mas.gov.sg/>
- ⁷⁷ Dec 2016, [Deposits \(excluding SGD NCDs\) of DBUs by types of non-bank customers](https://secure.mas.gov.sg/), MAS, <https://secure.mas.gov.sg/>
- ⁷⁸ Dec 2016, [Interest rates of banks and finance companies](https://secure.mas.gov.sg/), MAS, <https://secure.mas.gov.sg/>
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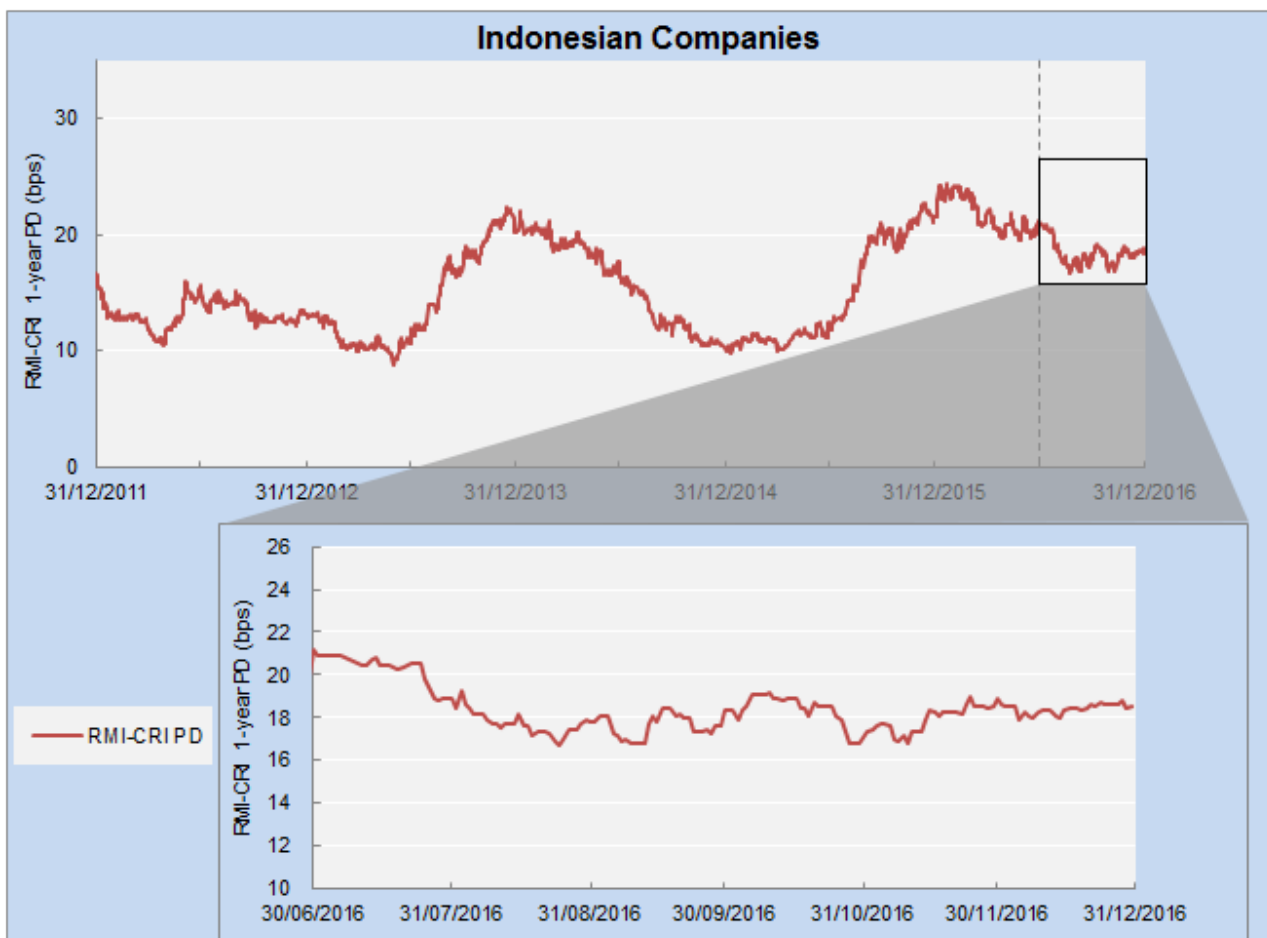
Asia-Pacific - Emerging economies

The RMI-CRI aggregate 1-year PD for listed corporations in emerging Asia, excluding India and China, declined in Q4. The credit quality of Thai companies improved while the credit profiles of Philippine firms deteriorated. Emerging Asian firms could be weighed down by global uncertainties prior to the US presidential election and potential US Federal Reserve rate hike. The energy sector witnessed an improvement in credit profiles after commodity prices continue to recover during the quarter. Moving forward, reflation could be an endearing theme for 2017 as the US has indicated employing fiscal stimulus to boost the economy.



Indonesian Companies

The RMI-CRI aggregate 1-year PD for Indonesian companies remained unchanged in the fourth quarter. Indonesia's economy grew at 5.02% YoY in 2016, faster than 4.88% growth in 2015. Indonesia's inflation remained under control for the whole year of 2016, standing at 3.02% YoY while trade surplus in 2016 was higher by 14% from the previous year. Indonesia's tax amnesty ended with mixed results at the end of 2016. Taxpayers have declared IDR 4,296tn worth of assets in 2016, surpassing the IDR 4,000tn target. However, offshore assets repatriated back to Indonesia stood at IDR 140.5tn, far below the IDR 1,000tn target. The fourth quarter of 2016 was also marked by higher political tension ahead of Jakarta's gubernatorial election in February 2017.



Economy

- Economy growth during Q4 slipped to 4.94% YoY in Q4 2016, slowing down from 5.01% growth in the previous quarter. For the whole year of 2016, the economy expanded by 5.02% in 2016, up from a revised 4.88% growth in 2015. The slower growth in Q4 was attributed to state budget cuts, which had caused government spending to fall 4.05% YoY in the fourth quarter. Exports and imports also grew at a slower pace of only 1.74% and 2.27% respectively in 2016. Meanwhile, household consumption increased by 5.01% in 2016 and accounted for more than 56% of the total GDP.⁸⁴

- Consumer price index increased by 1.03% during Q4 from 125.41 in September to 126.71 in December. The overall CPI inflation in 2016 stood at 3.02% YoY, which was within the Bank Indonesia's inflation target of 4%. In 2016, the administered prices recorded low inflation of 0.21% YoY due to declining world's energy prices amid fuel and electricity subsidy reform. Inflation of volatile food stood at 5.92% YoY in 2016, which is relatively low amid La Nina occurrences. Core inflation in December also remained low at 3.07% YoY due to limited domestic demand, weak external pressure, and improved inflation expectation. Moving forward, inflation is forecast to be at the 2017 inflation target of 4.1
- Wages of Indonesian workers likely increased in Q4. Nominal wage of farmers per day increased by 0.53% during Q3 from IDR 48,368 in November to IDR 48,627 in December.⁸⁵
- Indonesia recorded a trade surplus of USD 0.99bn in December 2016, down from USD 1.22bn in September. The non-oil and gas trade surplus and a narrower oil and gas trade contribute to the overall trade surplus in December. The non-oil and gas trade surplus stood at USD 1.45bn in December 2016 while the oil and gas trade deficit stood at USD 0.45bn in December. Overall, Indonesia recorded USD 8.78bn surplus in 2016, up from USD 7.67bn in 2015. The increase was attributed to larger non-oil and gas trade surplus and narrower oil and gas trade deficit.⁸⁶
- According to Nikkei Indonesia Manufacturing Purchasing Managers' Index (PMI), Indonesia's PMI fell from 49.7 in November to 49.0 in December. The decline in December marked the third consecutive monthly fall in production. Manufacturers reported a drop in order books, citing lower demand and a decline in purchasing power. December's survey also revealed the largest monthly decline in new businesses since October 2015. Employment has also fallen in the past five months with December recording the most marked decrease since August.⁸⁷

Monetary

- On December 15, the BI (Bank Indonesia) Board of Governors agreed to maintain the BI 7-day repo rate, deposit facility, and lending facility at 4.75%, 4.00%, and 5.50% respectively. The decision marked the third time the central bank maintained the benchmark rate in Q4. The decision aims to accelerate economy recovery while maintaining macroeconomic stability in the face of uncertain global markets. Moving forward, the central bank will monitor several risks stemming from global economic uncertainties and domestic risks related to administered prices inflation. Bank Indonesia will continue to cooperate with the government to control inflation, manage liquidity, and ensure sustainable growth.⁸⁸
- On December 23, Bank Indonesia, Bank Negara Malaysia, and Bank of Thailand signed two bilateral Memoranda of Understanding (MoUs) on local currency settlement framework. The agreements serve to promote the settlement of bilateral trade and direct investment in their local currencies, facilitating economic and financial activities among the three countries. The agreement will also offer businesses more options of currency for trade settlement. The Framework will promote wider adoption of local currencies in the ASEAN community and further development in the regional foreign exchange and money market.⁸⁹

Funding & Liquidity

- Yield on Indonesia's 5-year bonds rose to 7.48% in December 2016 from 6.80% in September 2016. The rise in yield might be attributed to Donald Trump's presidential victory in November, which sparked off bond and currency selloff in the emerging markets.⁹⁰

- Indonesia's official reserve asset position increased from USD 115.7bn at the end of Q3 to 116.4bn in end-December. The increase was attributed to foreign exchange receipts, withdrawal of government loans and auction of Bank Indonesia foreign exchange bill. The reserve asset position can adequately cover 8.8 months of imports or 8.4 of imports and servicing of government external debts. The improvement in reserve asset position is deemed to improve the resiliency of the external sector and sustain economic growth in Indonesia.⁹¹
- Indonesia's long-term external debt in November 2016 grew by 3.6% (yoy) compared to 8.7% (yoy) growth at the end of Q3. Indonesia external debt position as of August 2016 stood at USD 316bn. Private sector external debt totalled USD161.5bn (51.1% of the total external debt) while public sector external debt stood at USD 154.5bn (48.9% of the total external debt). Public sector external debt grew by 12.1% YoY in November whereas the private sector external debt fell by 3.4% YoY.⁹²

Politics

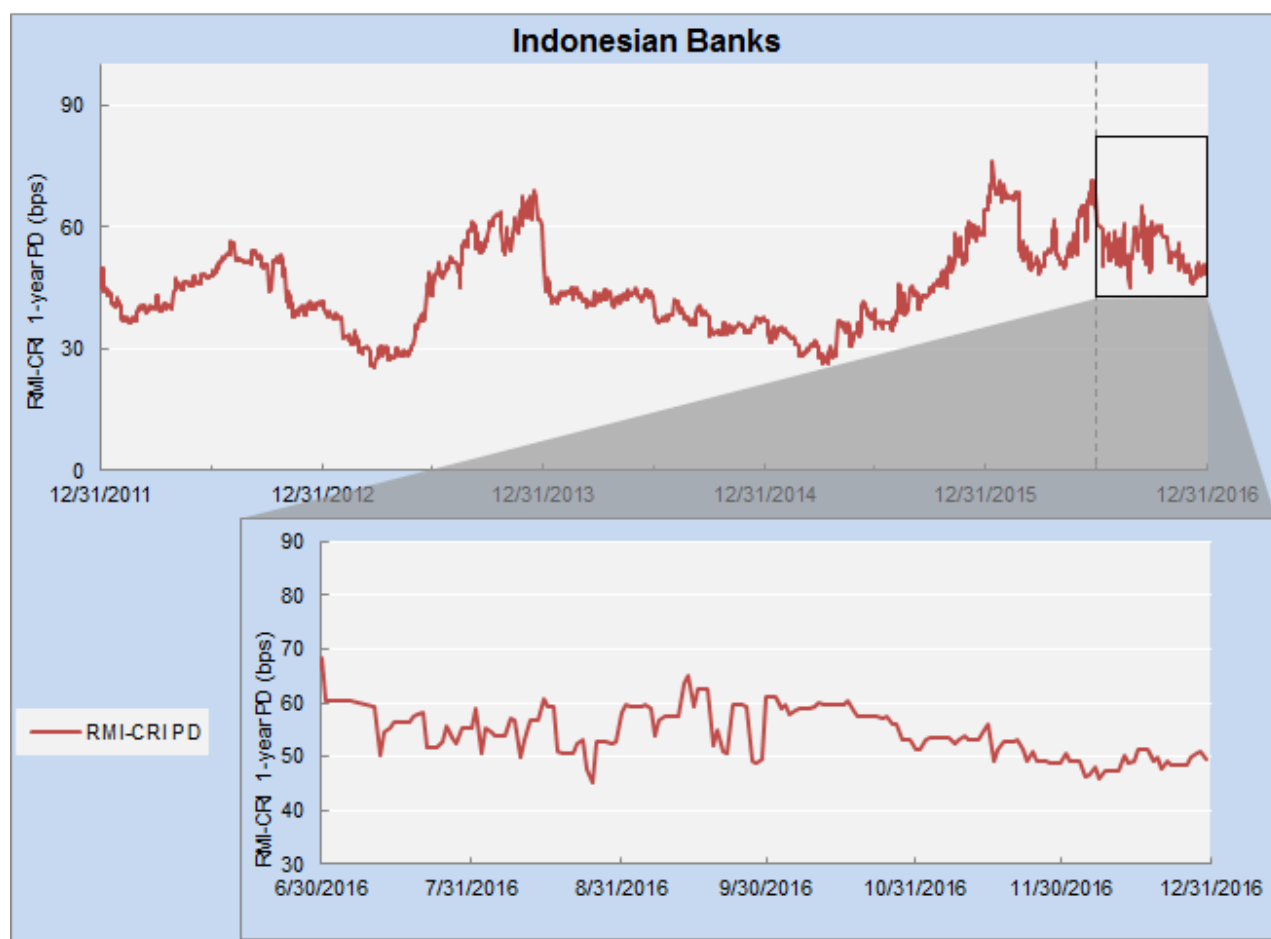
- On December 2, Indonesian police arrested 11 people suspected for treason against Indonesian President Joko Widodo. The group was suspected to take advantage of the mass rally in November to destabilize the current government. The mass rally held by conservative Islamists demanded the arrest of the Christian governor of Jakarta, Basuki Tjahaja Purnama, over his contentious comments on the Quran. In light of widespread fear of violence and riot during the mass rally, the police had stepped up the security measures. According to some analysts, the mass rally aims to weaken Mr Jokowi's political standing in light of the upcoming 2019 presidential elections.⁹³

Sovereign Credit Ratings

- S&P, Moody's and Fitch kept their ratings on the local currency long term bonds of Indonesia at BB+, Baa3 and BBB- ratings respectively in Q3. Moody's and S&P have maintained their stable outlook on Indonesia's sovereign debt while Fitch revised Indonesia's outlook from stable to positive.⁹⁴
- In December, Fitch revised the outlook on Indonesia's Long-Term Foreign- and Local-Currency Issuer Default Ratings from stable to positive. The revision takes into account the low government debt burden, favourable growth outlook, and limited sovereign exposure to banking-sector risks. The revision also reflects the government's ability to maintain macroeconomic stability despite market turmoil and the strong structural reform that is gradually improving the business condition.⁹⁵

Indonesian Banks

The RMI-CRI aggregate 1-year PD for Indonesian banks decreased slightly in Q4. Loan growth stood at 7.87% for the whole year of 2016, down from 10.1% expansion in 2015 and also below the double digit growth target. Amid slump in commodity prices, NPL in the banking sector climbed during the second half of 2016. The banking's NPL ratio has then declined to 2.98% in December from 3.20% in November. In January 2017, Indonesian Finance Minister Sri Mulyani surprised the market when she cut off business ties with JP Morgan upon the publication of negative research on Indonesia's equities.



Profitability

- Indonesian banks might report lower net incomes in the fourth quarter of 2016. The aggregate net income of three biggest state-owned Indonesian banks (Bank Mandiri, Bank Rakyat Indonesia, and Bank Negara Indonesia) fell by 15.9% from the previous quarter.

Funding & Liquidity

- The liquidity ratio (liquid asset/bank deposit) of Indonesian banks improved from 20.2% at end of Q3 to 20.9% in December 2016.⁹⁶
- The Jakarta 3-month interbank rate increased from 7.08% at the beginning of Q4 to 7.46% by the end of Q4. Similarly, the 1-month interbank rate increased from 6.23% at the beginning of Q4 to 7.80% by the end of Q4.

Regulation

- In January, Indonesia's government cut business ties with JPMorgan Chase & Co following a negative report on the country's equities. The finance ministry will no longer use JP Morgan as a primary dealer and underwriter of its sovereign bond as it deemed the research report to be neither accurate nor credible. The Finance Ministry has also tightened the rules for primary bond dealers, requiring them to "maintain partnership with the government". While many analysts have voiced concerns against censorship of research reports, Indonesia's finance minister Sri Mulyani has maintained that it will remain transparent. In accordance, the government will ask investment banks to remain professional, accurate, and free from conflict of interests.^{97, 98}
- In January, Indonesia's financial service authority has issued its first regulation on financial technology (fintech) that operate peer-to-peer (P2P) business lending. The regulations take into account the minimum capital requirements, interest rate provision, and education and consumer protection rules. Fintech companies are required to have IDR 1bn in capital when it registers and another IDR 2.5bn to apply for a business license. However, the regulation does not set the maximum interest rates on loan. OJK chair Muliawan Hadad remarked that the regulation was still a preliminary step made to regulate the fintech businesses.^{99, 100}

Asset Quality

- According to Bank Indonesia, the financial system remained stable. Capital adequacy ratio and liquidity ratio of Indonesian banks, as of November 2016, stood at 22.7% and 20.9% respectively, which were highly adequate to mitigate risk. Asset quality in the banking sector also improved at the end of 2016 as non-performing loans declined to 2.9% in December from 3.2% in November. Falling commodity prices and sluggish economic activities have resulted in higher NPL ratio in the third and fourth quarter of 2016.^{101, 102}

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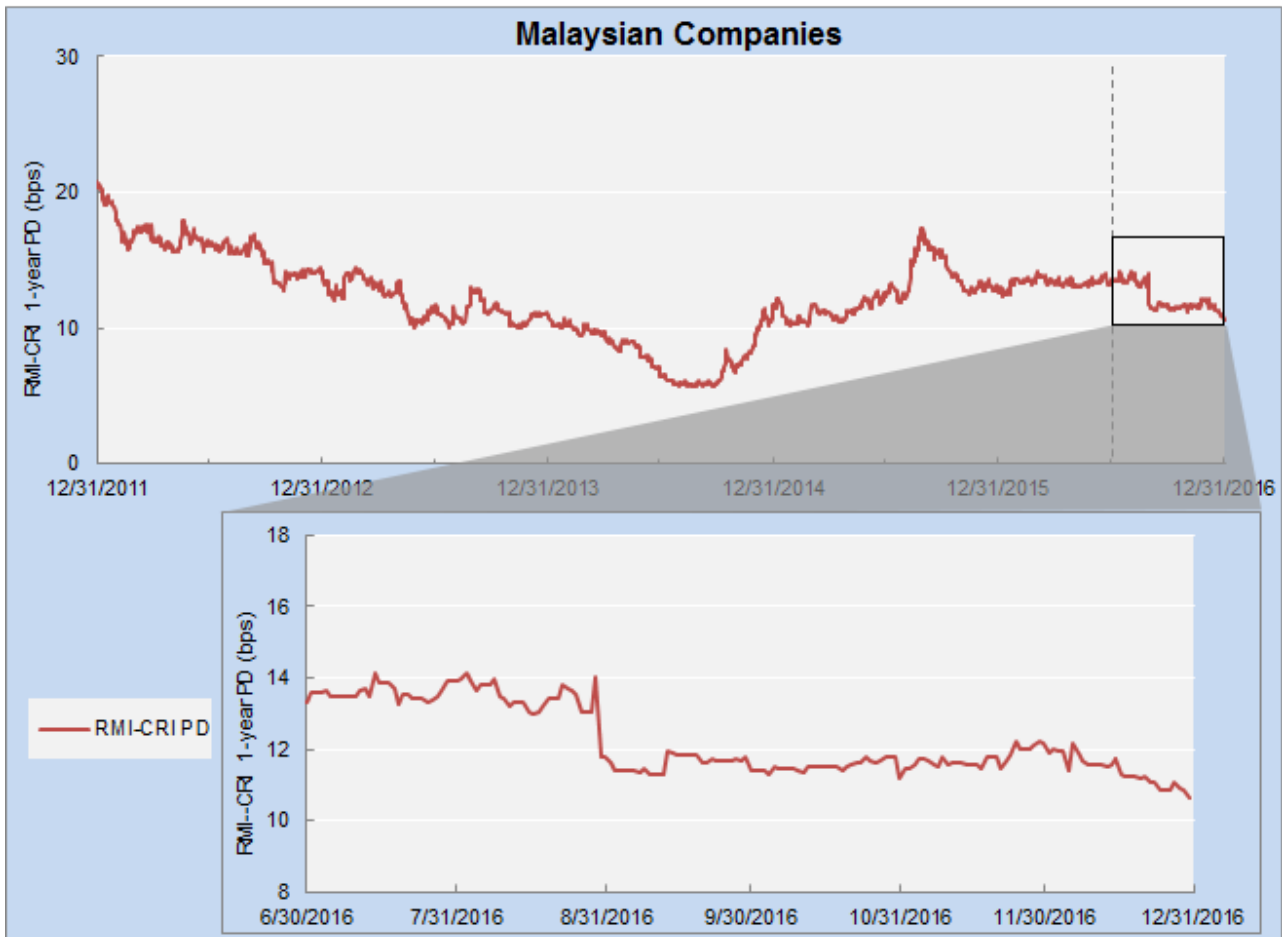
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Malaysian Companies

The RMI-CRI aggregate 1-year PD for Malaysian companies decreased slightly in Q4. Malaysia's economy grew at a moderate rate, but the growth pace was higher than the previous quarter, underpinned mainly by continued expansion in private sector spending and additional support from net exports. The country's inflation rate and unemployment rate both increased. With the exception of the agricultural sector, most sectors registered gains in the quarter. Money supply increased marginally and the overall domestic financial conditions remained stable.



Economy

- Malaysia's GDP expanded by 4.3% in Q3 2016 YoY, up from 4.0% in the previous quarter. As domestic demand experienced a slower expansion, net exports provided some impetus to growth, expanding by 5.9% in Q3 YoY. Private consumption and private investment grew at a pace of 6.4%, 4.7% respectively, while public investment contracted by 3.8%. Also, private consumption remained the key driver of growth. On the supply side, except for the agriculture sector, all economic sectors expanded in Q3 2016.¹⁰³

- The Consumer Price Index had increased to 116.9 (2010=100) in December 2016, up from 114.8 in December 2015. On a YoY basis, the price of the basket of goods had increased by 1.8%. The YoY increase was mostly driven by food and non-alcoholic beverages, recording at a 3.7% increase.¹⁰⁴
- Malaysia's employment registered a moderate net gain of 40,500 jobs. However, the gains in unemployment remained insufficient to absorb the growth in new labour entrants. Its unemployment rate, thus, increased to 3.5% in Q3 2016. Labor participation rate sustained at 67.6% of the total labor force, unchanged from the previous quarter.¹⁰⁵
- In December 2016, Malaysia's export expanded MYR 7.3bn, up by 10.7% YoY. This was mainly attributed to electrical and electronic (+9.0%), refined petroleum products (+71.9%), palm oil and palm-based products (+24.5%) and crude petroleum (+15.9%). Meanwhile, Malaysia's total import value increased by 11.5% YoY to MYR 66.8bn. This was mainly attributed to the increase in intermediate goods (+9.8%), capital goods (+11.8%) and consumption goods (+2.6%). Total trade value in December 2016 expanded by 11.1% YoY to MYR 142.4bn, up by MYR 14.2bn. Total trade surplus stood at MYR 8.7bn, up by 4.3% YoY.¹⁰⁶

Monetary

- Bank Negara Malaysia announced that it decided to maintain the Overnight Policy Rate (OPR) at 3%, with ceiling and floor rates unchanged at 3.25% and 2.75% respectively.¹⁰⁷
- In September 2016, broad money (or M3), which measures the money supply, increased by 1.1%, compared to August 2016, to MYR 1.6tn.¹⁰⁸
- Malaysia's central bank said that economic activity in major advanced economies has improved but remains moderate. In particular, growth in Asia has been supported by domestic demand amid persistent weakness in the external sector. The domestic economy of Malaysia continued to expand in the third quarter of the year, driven mainly by private sector activity with some support from net exports. Going forward, private sector activity will continue to be the key driver of growth. Additionally, there is uncertainty arising from risks of protectionism and financial market volatility and global financial market conditions are likely to be susceptible to policy and market developments.¹⁰⁹

Funding & Liquidity

- The market indicative yield on the 10-year Malaysia government securities slipped to 3.55% at the end of June 2016 from 3.59% in the previous month. However, the same yield measure on 5-year Malaysia government securities increased to 3.24% from 3.18% over the same period.¹¹⁰
- Bank lending to finance, insurance and business activities increased to MYR 14.8bn in September 2016 from MYR 13.9bn one year ago. Meanwhile, loans disbursed to the manufacturing and the wholesale, retail trade, restaurants and hotels segments shrank by 1.8% and 1.6% YoY respectively.¹¹¹

Politics

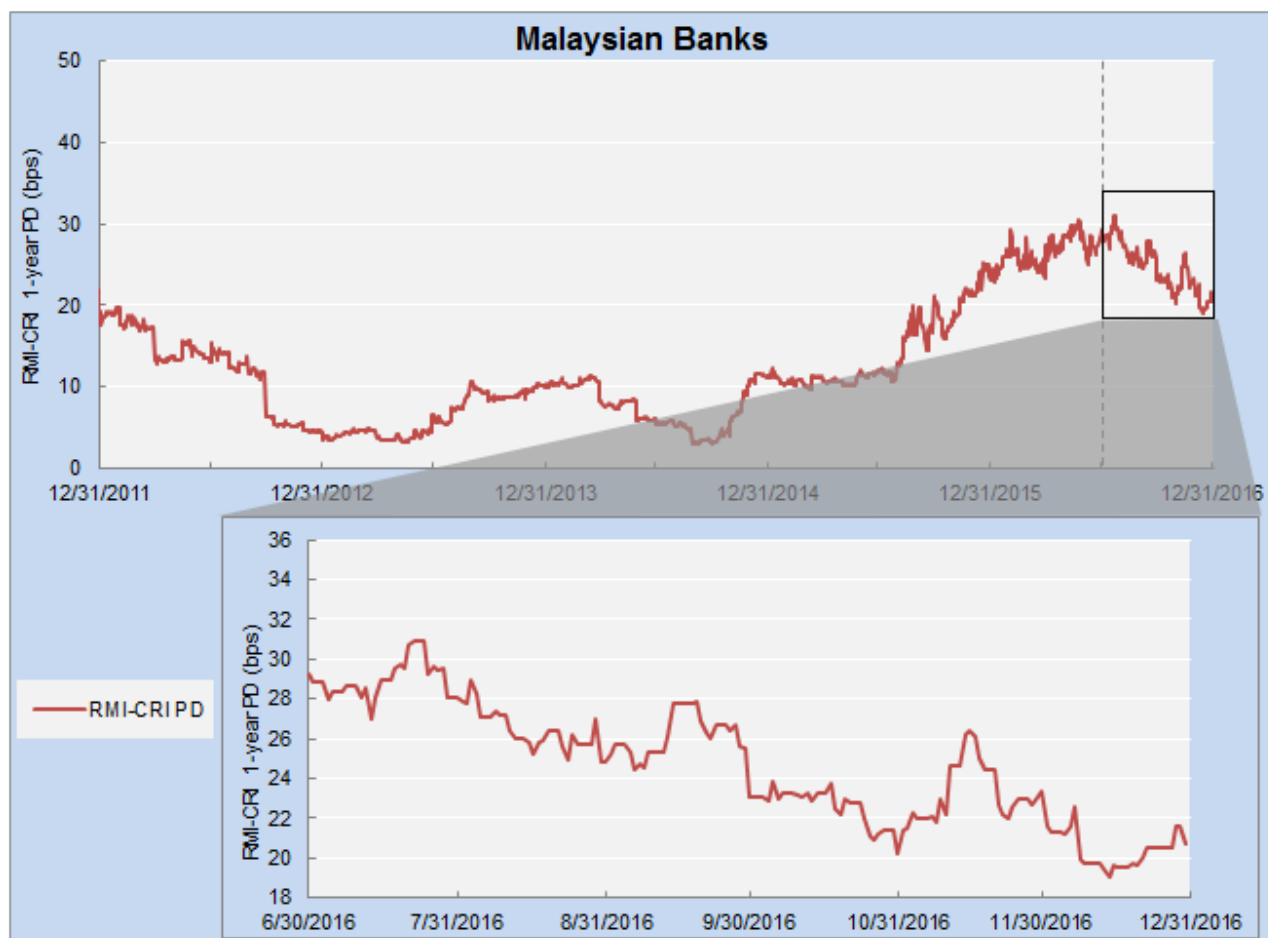
- Tens of thousands of people took to the streets of Kuala Lumpur, the capital of Malaysia, on 19th Nov 2016 to call for the resignation of Prime Minister Najib Razak, who is accused of taking USD 1bn from a government investment fund. The protesters converged on the city center to hear their leaders call for Mr. Najib's ouster. It was the fifth year that Bersih, Malaysia's clean government movement, had staged a protest calling for an end to corruption in government. In retaliation, Mr. Najib criticized the Bersih coalition for trying to bring down his government, which he says was fairly and democratically elected.¹¹²
- Malaysia's central bank says it will consider introducing more measures to stabilize the Ringgit if needed, as previous steps to reduce speculation of the currency show progress. The currency has been the hardest hit of Asian emerging markets since Donald Trump's victory in the US election, which spurred bets of more rate increases. Consequently, the ringgit fell to its weakest ever against the Singapore dollar at 3.1401 last November as tighter US monetary policy and concerns over US trade relations with China reduced the appeal of riskier assets.¹¹³

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. Moody's, S&P and Fitch assigned a stable outlook for their ratings on Malaysia.

Malaysian Banks

The RMI-CRI aggregate 1-year PD for Malaysian banks declined in Q4 as the pace of household loan growth has declined. The growth in household loans was driven by safer housing loans - loans supported by property collateral while the level of unsecured loans remains high. A decline in auto loan growth signals increased caution towards discretionary spending as the overall household impaired loan ratio remained stable in Q4, unchanged from a year ago. With the exception of the mining and commodity sectors, most of the banks' asset quality remains stable. The credit outlook for Malaysian banks remains positive.



Lending

- The amount of bank loan applications has decreased to MYR 58.3bn in December 2016 from MYR 68.2bn in September 2016. Loan application for working capital had fallen to MYR 14.3bn in December 2016 from MYR 16.8bn in September 2016.¹¹⁴
- The base lending rate of Malaysian commercial banks remained unchanged at 6.65% in December 2016 on a QoQ basis. The weighted base rate also remained unchanged at 3.61% in December 2016 from September 2016.¹¹⁵

Funding & Liquidity

- Total bank deposits increased by 1.2% from September 2016 to December 2016. The repurchase agreement decreased from MYR 14.5bn in September 2016 to MYR 15.6bn in December 2016. On a YoY basis, repurchase agreements decreased by 33.1% in December 2016.¹¹⁶
- Savings deposit rates at commercial banks had remained unchanged at 0.96% in December 2016 on a QoQ basis. The 12-month fixed deposit rate had declined to 3.06% in December 2016 from 3.07% in September 2016.¹¹⁷

Capital Levels & Regulations

- The Malaysian banking system remained well capitalized. Both Common Equity Tier 1 Capital Ratio and Tier 1 Capital Ratio had increased to 13.1% and 14.0% in December 2016 from 12.8% and 13.8% one year ago, respectively.¹¹⁸

Asset Quality

- The value of impaired loans at Malaysian banks had increased slightly to MYR 24.48bn in December 2016 from MYR 24.43bn in September 2016. The ratio of net impaired loans to net total loans decreased to 1.2% on a QoQ basis.¹¹⁹

¹⁰³RefMalaysiaone

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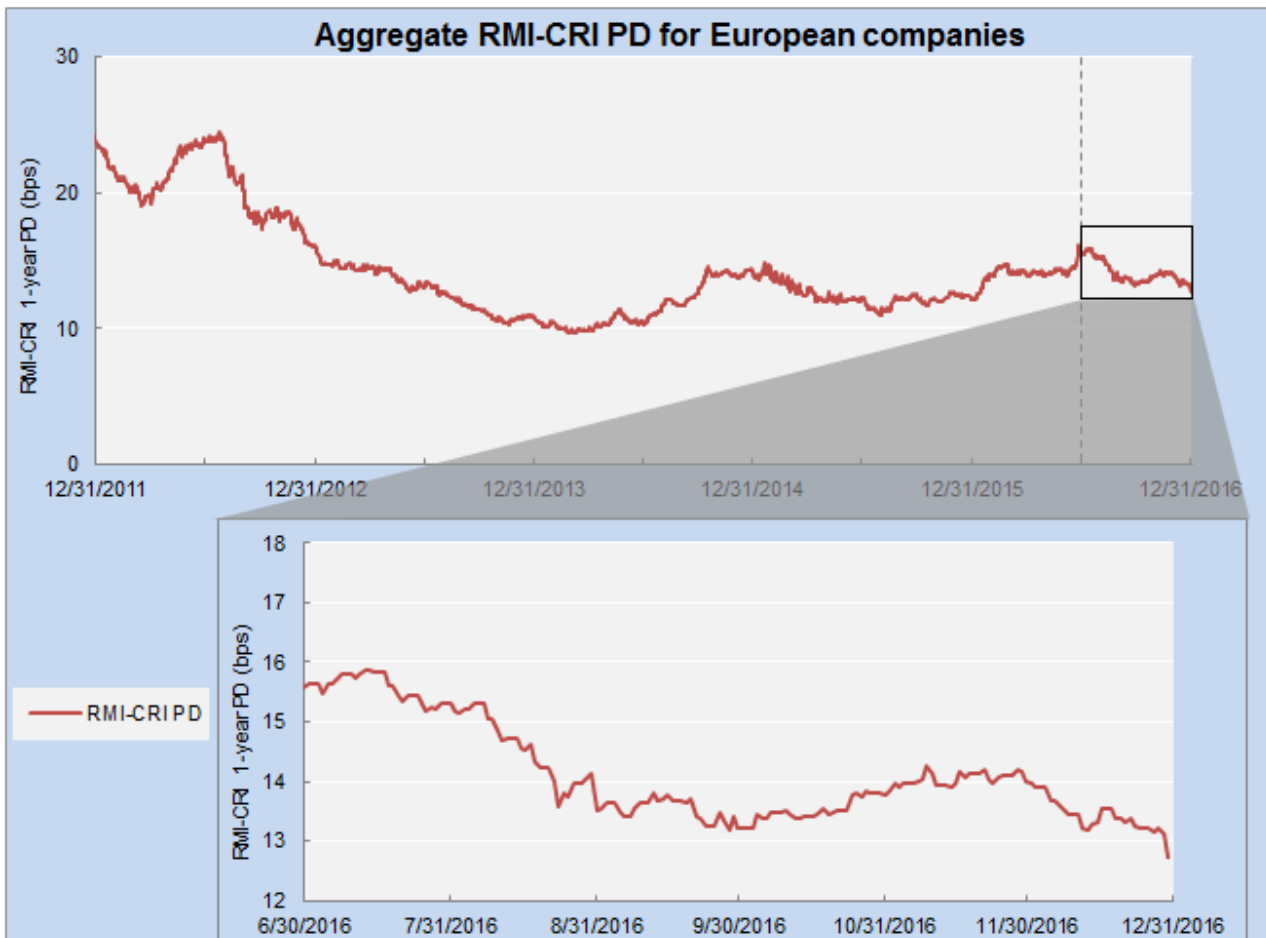
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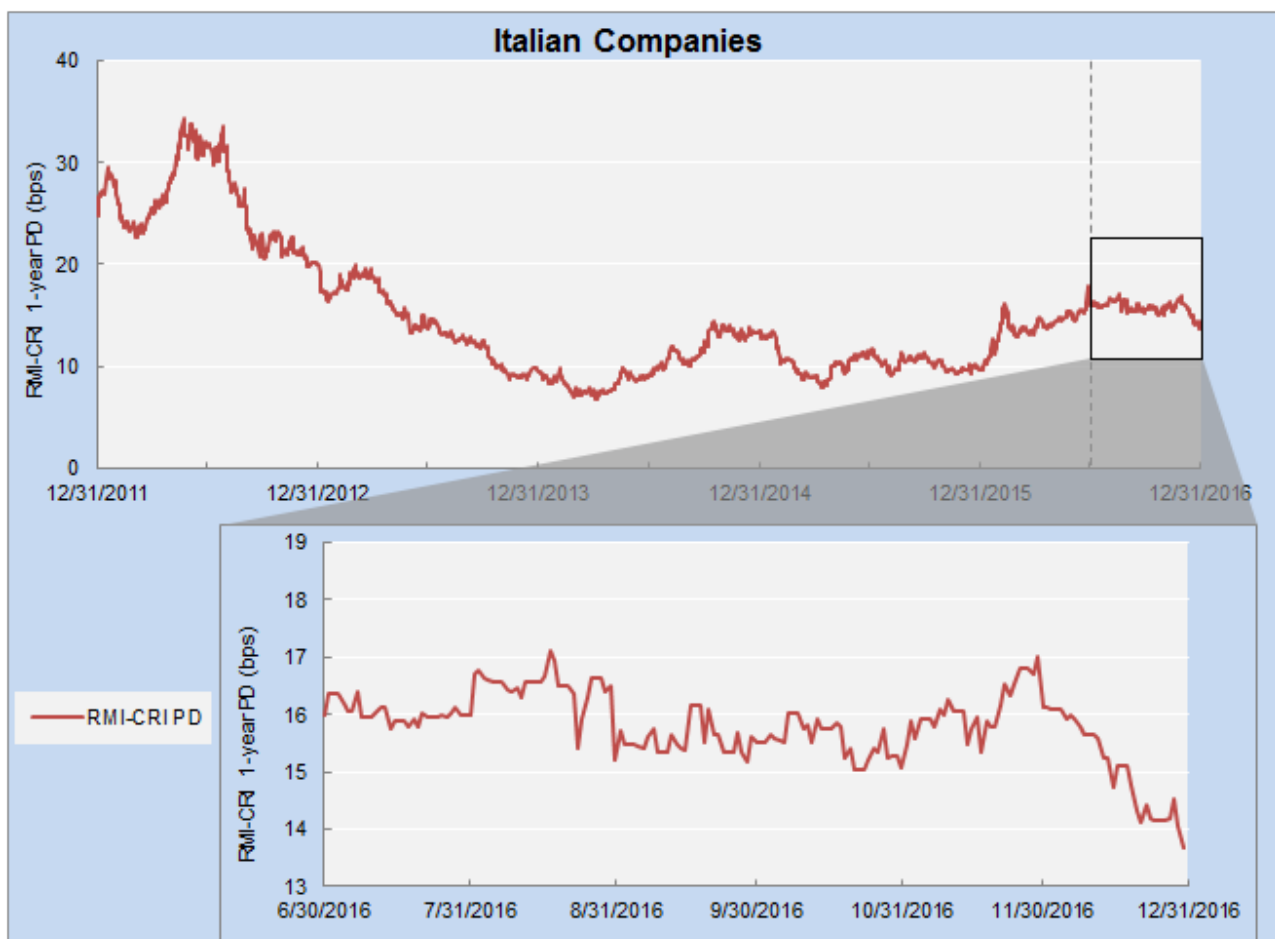
Europe

The RMI-CRI aggregate 1-year PD for European firms continued to decrease in Q4 2016, alongside with the higher than expected 0.5% Eurozone GDP growth in Q4. Despite problems such as the ailing Italian banks, the Greece's debt issue and the British leaving the Eurozone, unemployment rate, business sentiment and growth rates performed much better than expected. The European central bank will continue to keep monetary policy loose to help expand economic growth given that inflation rate is still below the target of 2%. Political risks may plague the Eurozone with several countries such as Germany and France having their elections in 2017, set against the backdrop of populist movements seen in the case of Brexit and the US election.



Italian Companies

The aggregate 1-year RMI PD for Italian companies fell marginally during Q4, amid a backdrop of increasing unemployment and modest economic growth. The economy grew by 0.2% over the quarter, and recorded a 0.9% YoY growth in 2016. The manufacturing and services sector continued to expand, with the former being driven by higher export sales and the latter by a decline in prices. Economic sentiment indicators show improvement, while retail sales remains poor, although the outlook is generally positive. Bond yields increased over the year due to increased political uncertainty following the constitutional reform referendum defeat, which was followed by downgrades in Italy's sovereign credit ratings. Funding costs for non-financial companies increased slightly over the year, while total outstanding loans were at its lowest yearly level in December 2016. Slow bank reform, increasing public debt and higher political uncertainty are likely to weigh in the economy in 2017.



Economy

- The GDP of Italy increased by 0.2% moving from Q3 to Q4, after the economy expanded 0.3% from in the previous quarter. The economy expanded 1.1% YoY, and recorded a growth of 0.9% over the course of 2016 - beating the European Commission's forecast of 0.7%. The EU forecasts the economy to maintain its growth rate in 2017, as it noted that structural weaknesses in Italy's economy as well as political uncertainty as the threat of early elections loom as reasons for the low forecast.^{120,121}
- Italy's unemployment rate remained high at 12.0% in December, up from 11.7% in November and 11.6% in October. The country ended the quarter with 22.78mn people employed. 3.103mn people were unemployed. Youth unemployment (aged 15-24) was 40.1%, up 0.2 percentage points over November. Italy now reports monthly estimates of labour market indicators instead of the standard quarterly reports.¹²²

- Italy's manufacturing Purchasing Managers' Index (PMI) - an index of sentiment in the manufacturing sector - recorded a six-month high reading of 53.2 in December. New orders for manufacturers expanded for a fifth straight month, boosted by higher export sales. Manufacturers had a generally optimistic outlook of the manufacturing sector, and also reported increase in pre-production inventories.¹²³
- Italy's services PMI recorded a similarly positive reading of 52.3, marking a seventh consecutive increase of output in the service sector. December also marked the third straight month where the country reported a rise in employment among services companies, and the third straight month reporting an increase in business outstanding - that is, backlog accumulation. Rate of cost of inflation also accelerated. December also saw a decline in prices across the services economy.¹²⁴
- 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 104.3 in December, 104.2 in November and 105.2 in October. These figures are notably higher than the 103.9 average reported over Q4.¹²⁵
- The confidence climate index - grew in December 2016 to 111.1 from a 108.1 reading recorded in November 2016. The personal and current components of the index improved from 102.7 to 103.8, and 106.2 to 107.6 respectively. The outlook on unemployment was brighter - the reading improved from 20 to 33, while the outlook on the expectations on inflation was positive, increasing to -10 from -34.¹²⁶
- However, retail sales, indexed by the Markit Retail PMI fell to 47.9 in December, due to lower footfall and poor weather. Increase in purchase prices for retailers contributed to the fall, coupled with lower gross margins across the sector. Retailers cite more favourable weather, promotions and higher consumer sentiment to improve sales in the coming month, although political instability and higher fuel costs could dampen those prospects.¹²⁷

Funding & Liquidity

- Yields on 10-year Italian bonds increased in Q4 and in 2016 as a whole, and stood at 1.815% on 30th December 2016, after beginning 2016 at 1.596%. Yields at the end of Q3 2016 was 1.188%. Yields reached a quarterly peak of 2.131% on 24th November amid uncertainty of Italy's constitutional reform referendum.
- Interest rates on loans (other than bank overdrafts) to non-financial corporations increased slightly throughout the quarter, up from 1.4979% in September 2016 to 1.5355% in December 2016. Bank interest rates (including revolving loans, overdrafts and extended credit card credit) to corporations decreased throughout Q4 2016, from 3.71% in Q3 to 3.50% in December 2016. Loans for house purchases remained relatively stable, and stood at 2.024% at the end of Q4.¹²⁸
- Preliminary estimates for outstanding loans to non-financial institutions stood at 784,958, the lowest number in Q4 and 2016 as a whole. Total outstanding loans decreased by 1.78% from the start of 2016.¹²⁹

Politics

- Italy's referendum on constitutional reform - which sought to reduce the power of the Senate, reduce the number of Senators, and make these lawmakers selected by regional assemblies was held on December 4. Italians voted resoundingly against the reforms and decided to stick to the status quo, with 59.11% voting no. Prime Minister Matteo Renzi announced his resignation immediately after the defeat, but only resigned 3 days later after passing the 2017 budget. Former Minister of Foreign Affairs Paolo Gentiloni

was selected by Italian President Sergio Mattarella to form the new government. The referendum defeat is widely interpreted as another win for the populist movement - following the Brexit vote and Donald Trump's triumph in the US Presidential election.¹³⁰

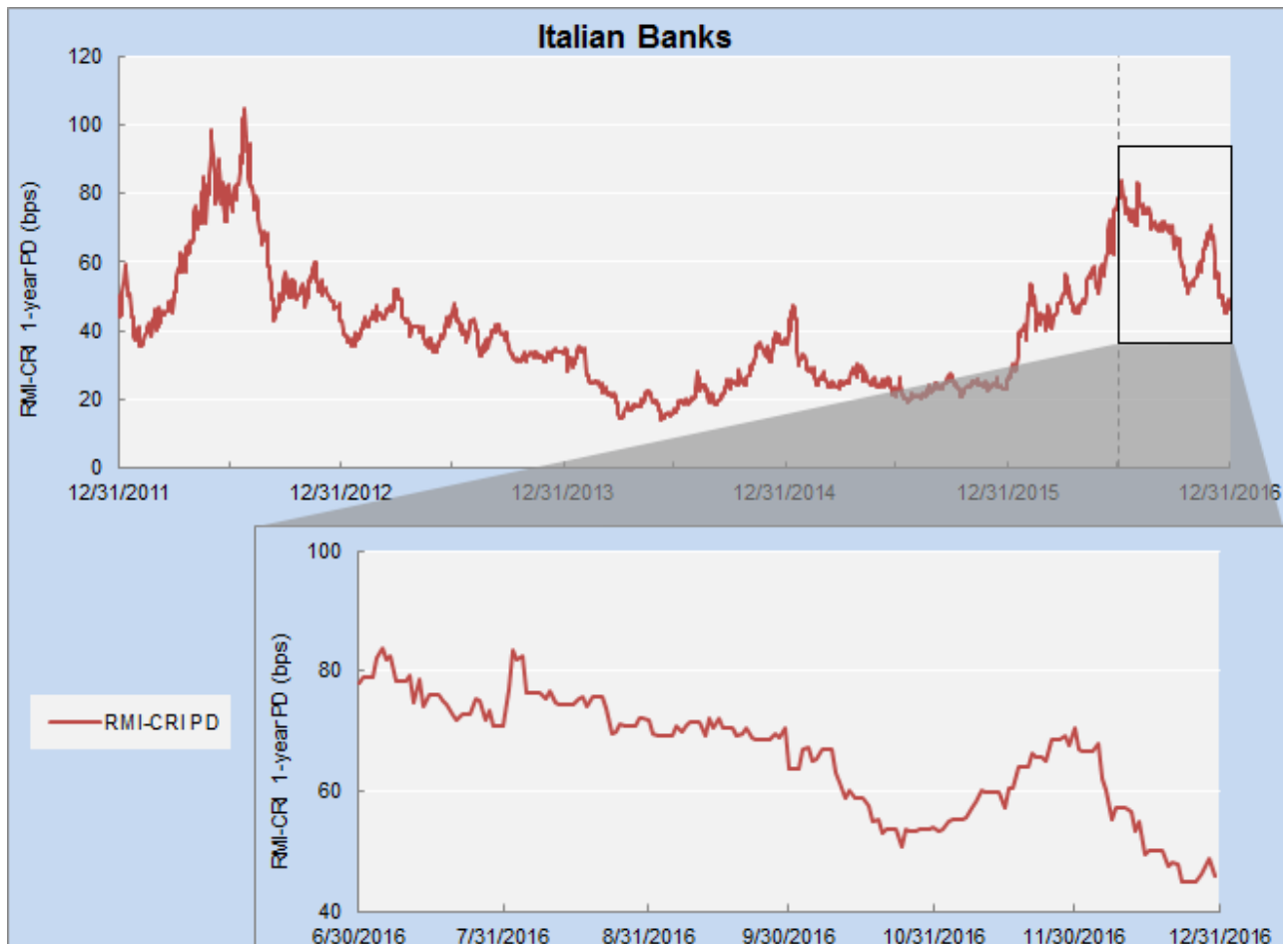
- Markets did not react resoundingly to the referendum defeat. The Euro traded relatively unchanged in the following trading day, and major US and European stock markets posted gains. However, political uncertainty arising from Prime Minister Matteo Renzi's resignation immediately derailed plans of banking regulation reform. However, the government responded with a bailout package unveiled on December 21, a EUR 20bn plan to prop up the country's weaker banks, starting with a EUR 6.5bn capital injection into the world's oldest surviving bank, Banca Monte dei Paschi di Siena, which had an estimated capital shortfall of EUR 8.8bn.¹³¹
- Italy's latest published public accounts were that of Q3 2016. Total expenditures for Q3 increased 0.8%, while total revenues rose by 0.6%. The increase in total expenditures was attributed to increase in current expenditures by 1.5% and a fall of 7.2% in total capital expenditures. Increases in total revenues were contributed by growth of current taxes on income and wealth, social contributions and capital taxes. The Government deficit to GDP ratio was 2.1%. This figure was 2.0% in Q3 2015. Italy's debt-to-GDP ratio stood was revised to 132.8% for 2016, and is expected to grow to an all-time-high of 133.3% in 2017.^{132,133}
- The Parliament of Italy passed its 2017 budget on December 7. The budget aims to boost public investments and corporate taxes to keep growth alive. The government is targeting a 2.3% budget deficit as a percentage of GDP, slightly higher than the last reported Q3 figure. It is notable that this figure is higher than the 1.8% previously agreed with the European Union. The budget also gives a EUR 7bn boost to pension funds, and slashes Italy's corporate tax rate to 24% from 27.5%. The Italian government also forecasts GDP growth of 1.0% in 2017.¹³⁴

Sovereign Credit Ratings

- Moody's downgraded the outlook on Italy's Baa2 long-term issuer rating from stable to negative on December 7, citing economic and fiscal reform delays resulting from the referendum result, and prolonged exposure to unforeseen shocks resulting from Italy's large debt burden. Fitch cut its outlook on Italy to negative from positive, but kept its rating at BBB+ on October 22, citing weak growth, high debt and the uncertain referendum outcome. Standard & Poor's rating remain unchanged at BBB-u, stable.^{135,136}

Italian Banks

The aggregate 1-year RMI PD for Italian banks declined over Q4 despite the sector's aggregate loss during the quarter. Moving forward, the banking sector's profitability is likely to fall further in 2017 and smaller banks may be forced to improve their capital ratios. Italian banks have the worst problem loan ratios in Europe, bad loans make up 16.4% of total loans which is three times the European average. Lenders are expected to report higher loan loss provisions and higher impairment charges given the uncertain political climate and diminished investment sentiment. A failure to restructure Monte dei Paschi could also undermine investor confidence in Italian banks.



Profitability

- A summation of the latest reported quarterly net income of 17 Italian domiciled banks revealed an aggregate loss of EUR 16.09bn. The large aggregate loss is led largely by Italy's biggest lender, UniCredit SpA booking a EUR 13.6bn Q4 loss due to a major clean-up of its balance sheet. Banca Monte dei Paschi recorded a 2016 EUR 3.38bn loss, with EUR 2.6bn of the losses coming from writing off bad loans. UniCredit's fully-loaded common equity Tier 1 (CET1) ratio fell to 7.54% at end 2016, while Monte Dei Paschi's CET1 ratio was 8.0%. A proposed EUR 13bn share sale will raise UniCredit's CET 1 ratio to 11.5%. Monte dei Paschi's shares were halted from trading while more investors await details on the government bailout plan to become available.^{137,138}
- The average trailing 12 month net interest margins of the same universe of 16 banks was 1.64% in Q4, which was slightly higher than in the previous quarter.

Funding & Liquidity

- Coupons on new 5-year euro-denominated Italian bank bond issuances dropped to 0.54% during Q3 from 1.45% in Q2.

- Deposits of funds by Italian residents (12 month percentage changes) was 5.06% in December 2016, while total deposits of non-domestic residents fell by 6.31%. Bank funding from the Eurosystem grew by 29.04% compared to December 2015, while debt securities issued by banks fell 19.21% compared to this month last year. Total deposits and postal savings by residents and non-financial corporations was EUR 226.73tn, based on latest data published in Q3 2016.^{139,140}
- Interest charged on business loans (other than bank overdrafts) of over EUR 1mn to non-financial institutions was 1.1156% in December, up from the 1.0208% average reported in September. Similar loans with collateral and/or guarantees was charged with an interest rate of 3.0673%, up from 3.0272% over the same period. Bank interest rates on loans to sole proprietors was 3.1249% in December, down from 3.1782%.
- The Bank of Italy's liabilities to Euro-area financial counterparties totaled EUR 71.98bn in December 2016.
- Italian bank liabilities towards the Eurosystem increased to EUR 185bn in November from EUR 174bn in August. Lenders increased their funds held at the ECB by 10.2% in November while capital and reserves remained at EUR 442bn during the three months ending November.¹⁴¹
- According to the latest bank lending survey, the average margin on loans to firms and households continued to narrow, though more gradually. The demand for business loans remained unchanged, while household demand for house purchase and consumer loans strengthened further, backed by an improved outlook for the housing market and low interest rates.¹⁴²

Asset Quality

- The Bank of Italy said that the ratio of new non-performing loans to outstanding declined during Q3 to 2.6% from 2.9% in the preceding quarter. The non-performing ratio for loans to firms dropped from 4.5 to 4.1 percent while a similar measure for loans to households fell from 1.9 to 1.7 percent.¹⁴³
- The percentage of write-downs over non-performing loans increased to 47.3 percent, hampering the profitability of some Italian banks.¹⁴⁴

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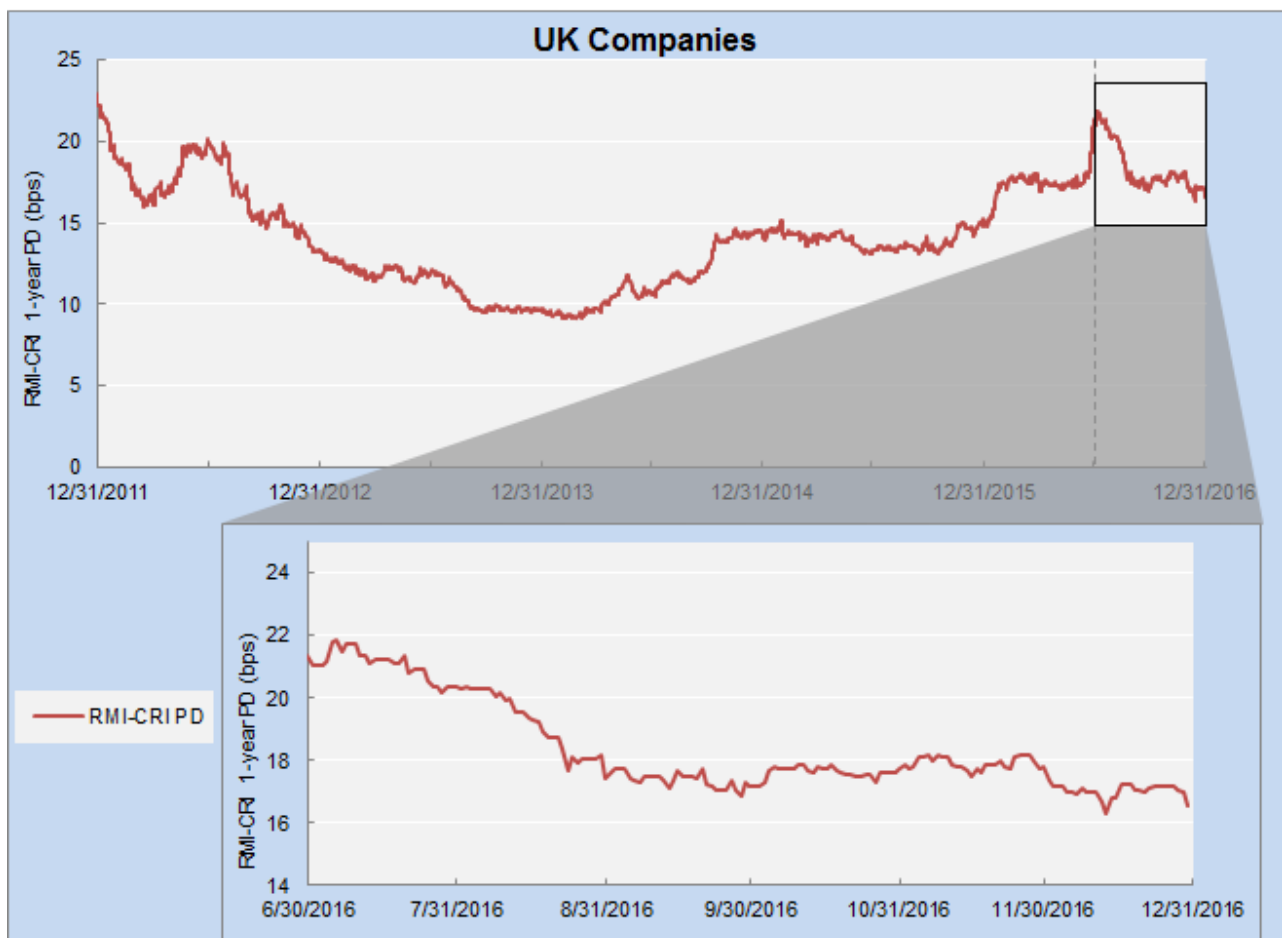
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- ¹³⁷ Feb 9, 2017, [UniCredit Posts Jumbo Loss on Loan Provisions, Charges](https://www.bloomberg.com/), Bloomberg, <https://www.bloomberg.com/>
- ¹³⁸ Feb 14, 2017, [Monte dei Paschi posts EUR 3.4bn loss in 2016 on loan writedowns](https://www.rte.ie/), RTE, <https://www.rte.ie/>
- ¹³⁹ Dec 2016, [\[TSC40600\] Bank funding \(12-month percentage changes\)](https://infostat.bancaditalia.it) , Banca Italia, <https://infostat.bancaditalia.it>
- ¹⁴⁰ Dec 2016, [\[TDB10163\] Deposits and postal savings - by customer province and sector](https://infostat.bancaditalia.it) , Banca Italia, <https://infostat.bancaditalia.it>
- ¹⁴¹ Jan 2017, [Economic bulletin - January 2017](http://www.bancaditalia.it) ,, Banca Italia, <http://www.bancaditalia.it>
- ¹⁴² Jan 2017, [Economic bulletin - January 2017](http://www.bancaditalia.it) ,, Banca Italia, <http://www.bancaditalia.it>
- ¹⁴³ Jan 2017, [Economic bulletin - January 2017](http://www.bancaditalia.it) ,, Banca Italia, <http://www.bancaditalia.it>
- ¹⁴⁴ Jan 2017, [Economic bulletin - January 2017](http://www.bancaditalia.it) ,, Banca Italia, <http://www.bancaditalia.it>

UK Companies

The aggregate RMI-CRI 1-year PD for companies in the UK maintained stable with a slight downtrend. The slight improvement is in line with improvement in the UK economy - while GDP growth remained constant at 0.6% QoQ, unemployment declined slightly, consumer spending in the quarter was the highest in the year, and manufacturing and construction indices posted solid improvements. The UK in the quarter also narrowed its trade deficit by following a sharp widening in the deficit in Q3. Regulators remain concerned over slowing economy activity in China and Eurozone countries, and an extremely volatile Sterling exchange rate could pose economic risks. Brexit talks, set to begin in March could also bring along economic instability to the UK over uncertainty of terms regarding the Brexit deal.



Economy

- The UK's Q4 GDP grew by 0.6%, the same rate as previous two quarters. Most of the growth came from the services sector, driven by consumer-focused industries including retail sales and travel agency services. After two consecutive quarters of negative growth, construction and production arrested their declines, but posted negligible contributions of 0.1% and 0.0% respectively. The insurance & reinsurance, motion picture, and computer programming and consultancy industries each posted the largest negative growth of -0.02%. Annual GDP growth in 2016 was 2.0%.¹⁴⁵

- The unemployment rate was 4.8% for the period of September to November 2016, down from the 4.9% reported in the preceding period of June to August 2016. The labour force remained virtually unchanged, while the number of people not working or not seeking work increased. The employment rate stood at 74.5%, virtually unchanged from June to August 2016, but higher than the reported 74.0% from a year earlier. A reported 23.25 million people working full-time was 209,000 more than from a year earlier.¹⁴⁶
- Consumer spending fell by 2.3% in December after November displayed a 3.1% growth, largely due to the Black Friday shopping event. The index was up 2.6% for 2016 as a whole. The final quarter of 2016 was also the best performing quarter for the past two years. However, a large portion of the increase in spending was online - face-to-face spending through physical stores only increased 0.7% in 2016.¹⁴⁷
- The trade deficit on goods and services narrowed by 39% to GBP 8.6bn in Q4 after the trade deficit in Q3 was reported at GBP 14.2bn. The narrowing was attributed to increased exports to non-EU countries, coupled with a smaller increase in imports from Q3 to Q4, compared to from Q2 to Q3. In 2016 as a whole, exports to both EU and non-EU countries increased, but exports to non-EU countries reported a 17.3% QoQ growth in Q4 to GBP 43.8bn, while exports to EU countries only grew by 3.5% to GBP 38.3bn.¹⁴⁸
- The Markit/CIPS purchasing managers' index (PMI) for the manufacturing sector stood at 56.1, signifying the highest growth in 30 months. UK companies saw strong increase in orders both domestically and from overseas, with overseas orders spurred by the weaker pound sterling rate. The index read 53.6 in November. In the construction sector, the PMI index read 54.2 in December, up from 52.8 in November despite intense input cost pressures. Residential building activity remained the best performing sub-category in Q4 2016.^{149,150}

Monetary

- In its meeting on 14 December 2016, the Monetary Policy Committee (MPC) of the Bank of England voted to maintain its Bank Rate at 0.25% to meet its 2% inflation target - in line with analyst expectations. It also voted to continue with a purchasing programme of GBP 10bn of sterling non-financial investment-grade corporate bonds, and GBP 60bn of government bond purchases. The purchases will bring the total stock of government bond purchases to GBP 435bn. UK's Central Bank cited strong sterling appreciation, moderate growth of economic activity, strong consumption growth and increase in uncertainty of economic activity in China and the Eurozone as reasons behind the decisions.¹⁵¹
- CPI rose by 1.6% year-on-year in December 2016 - which was the highest July 2014. Annual CPI increases were 0.9% and 1.2% for October and November 2016 respectively. Price movements for the majority of the broad groups of goods and services contributed to the increase in rate from November to December, while the rise from October to November was due to rises in the price of clothing, motor fuels and recreational cultural goods and services. However, inflation still missed the 2.0% target set by the Bank of England.¹⁵²

Politics

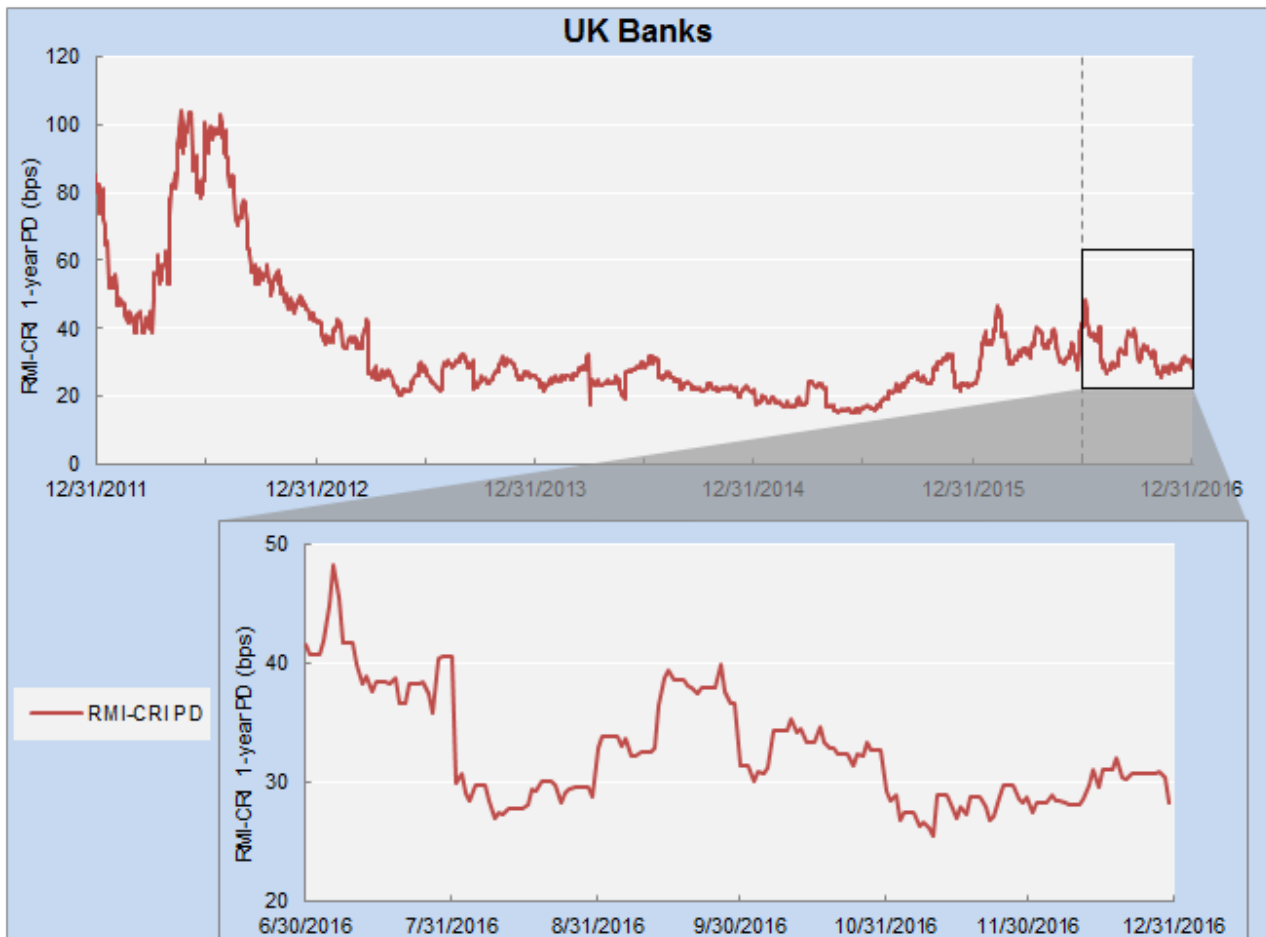
- Brexit remains the largest affair posing an economic risk to the UK. In what was one of her first detailed Brexit speeches since the UK voted in June 2016, Prime Minister Theresa May outlined 12 key objectives of UK's clean break from the EU in a 17th January 2017 speech. Among others, May promised to push for the freest possible trade deal for the UK, although it will break out from the European single market - which allows the free movement of goods, services and workers between its members. PM May also said that UK's relationship with the EU customs union will change, and that any deal agreed on pertaining to Brexit is subject to a vote in Parliament.¹⁵³
- The Brexit process, which was previously to begin in early-April 2017, may now begin as early as mid-March. This comes after the Supreme Court in London ruled that the Prime Minister could not trigger Article 50 of the Lisbon Treaty without unlawfully bypassing Members of Parliament (MPs). May must now table a Bill in Parliament to allow the government the power to invoke Article 50, and now intends to begin formal negotiations with Brussels in mid-March.^{154,155}
- Joseph Muscat, Prime Minister of Malta, which took over EU's rotating presidency on 1 January 2017, has stated that a deal agreed between the UK and the other 27 Euro nations will likely leave the UK in a worse position than it now enjoys being a member of the bloc.¹⁵⁶
- The World Bank noted that global growth has failed to meet its forecast every year since 2011, and the kickoff of the Brexit process will further dampen business and customer confidence - with key investment and spending decisions likely to be postponed. Its forecast for UK's GDP growth in 2017 and 2018 were revised to 1.2% and 1.3% respectively, down from the 2.1% forecast for both years before the referendum.¹⁵⁷
- On a somewhat lighter note, the Bank of England has come under intense criticism for over-predicting a dramatic slowdown in the UK's economy in the event of a Brexit vote. The UK in recent quarters was the strongest performing economy in the developed world; though the trend might unlikely persist when the Brexit process begins.¹⁵⁸

Sovereign Credit Ratings

- Moody's is likely to make key rating calls for the UK in 2017 due to rising political risk - likely driven by the Brexit affair. The agency last rated the nation at Aa1, a notch below its top-rank AAA, with a negative outlook. Fitch Ratings, together with S&P last rated the UK at AA, with a negative outlook.^{159,160}

UK Banks

The RMI-CRI aggregate 1-year PD for banks in the United Kingdom improved slightly in Q4 - similar to the trend exhibited by the RMI-CRI aggregate 1-year PD for UK companies. In terms of fundamentals, profitability has improved - mainly in terms of net interest receivable, while net fees and commissions fell. The FTSE 350 Banks Index rose by more than 10% over the quarter.



Profitability

- According to the Monetary financial institutions' quarterly income and expenditure tables released by the Bank of England, the net interest receivable jumped from GBP 15.31bn in Q2 2016 to GBP 16.57bn in Q3 2016.
- Net fees and commissions continued its downward trend, down to GBP 4.53bn across Q3 2016 from GBP 4.86bn in Q2 2016.¹⁶¹
- In terms of net income, Barclays and Lloyds reported net profits of GBP 524mn and GBP 206mn in the third quarter of 2016. HSBC recorded a quarterly loss of GBP 204mn, while the Royal Bank of Scotland (RBS) booked a loss of GBP 334mn.

Funding & Liquidity

- According to the Bank Liabilities Survey produced by the Bank of England, UK banks and building societies reported that total funding volumes increased slightly in Q4 2016 from Q3 2016. More specifically, retail deposit funding (which includes deposits from households and from private non-financial firms) remain unchanged, while 'other' funding, which includes wholesale deposits and wholesale debt funding had increased. Lenders reported that their average cost of capital has decreased in Q4.
- Investor demand for wholesale debt was broadly unchanged in Q4 2016, although demand from money markets was reported to decrease. Banks largely expect demand for wholesale debt to remain unchanged in Q1 2017.¹⁶²

Asset Quality

- The total write-offs of sterling denominated loans increased from GBP 1.26bn in Q2 2016 to GBP 1.43bn in Q3 2016, driven largely by credit-card write-offs to individuals, which increased from GBP 285mn to GBP 584mn. Write-offs to private non-financial corporations declined from GBP 704mn to GBP 552mn over the quarter.
- Write-offs on loans denominated in foreign currency increased from GBP 97mn in Q2 2016 to GBP 218mn in Q3 2016, driven by a 164% spike in the write-offs on loans to non-residents, which constitute the largest share of the total write-offs.¹⁶³

¹⁴⁵42761 [Gross domestic product, preliminary estimate: Oct to Dec 2016](http://www.ons.gov.uk), ONS, <http://www.ons.gov.uk>

¹⁴⁶42753 [UK labour market: Jan 2017](http://www.ons.gov.uk), ONS, <http://www.ons.gov.uk>

¹⁴⁷42744 [Consumer spending slowed over Christmas period, Visa figures show](https://www.theguardian.com/), The Guardian, <https://www.theguardian.com/>

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¹⁵²42752 [UK consumer price inflation: Dec 2016](https://www.ons.gov.uk/), ONS, <https://www.ons.gov.uk/>

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¹⁵⁷42745 [Trump and Brexit put global economic growth at risk, World Bank says](http://theguardian.com/), The Guardian, <http://theguardian.com/>

¹⁵⁸42683 [Q&A: What does Donald Trumps Presidential victory mean for the economy?](http://telegraph.co.uk/), The Telegraph, http://telegraph.co.uk

¹⁵⁹42549 [U.K. Rating Cut Two Levels by S&P, One by Fitch After Brexit](http://bloomberg.com/), Bloomberg, <http://bloomberg.com/>

¹⁶⁰42740 [UK, China, South Africa downgrade calls loom for Moody's](http://channelnewsasia.com/), Channel NewsAsia, <http://channelnewsasia.com>

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¹⁶²42748 [Bank Liabilities Survey - Survey Results 2016 Q4](http://www.bankofengland.co.uk/), Bank of England, <http://www.bankofengland.co.uk/>

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<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 probability of default (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 December 06, 2016, using data up to December 31, 2016. 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 Q3 2016 and Q4 2016. 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.

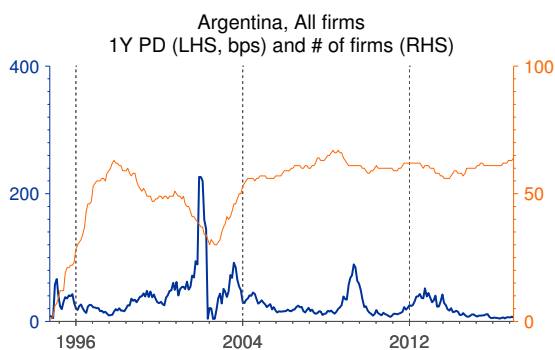
Appendix [B](#) gives 1-year aggregate PD by the seven regions of Asia-Pacific developed, Asia-Pacific emerging, North America, Latin America, Eastern Europe, Western Europe and Africa & the Middle East. The top two graphs of each region show the time series of the distribution of Probability of Default implied Ratings (PDiR). The PDiR methodology is described in the last section of Appendix [D](#). The different colored areas in the graph indicate different PDiR classes. From the bottom, the blue area indicates the percentage of CCC/C firms, the bottom-most white area indicates B firms, the orange area indicates BB firms, the middle white area indicates BBB firms, the green area indicates A firms, the top-most white area indicates AA firms, and the maroon area indicates AAA firms.

The bottom 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 count of firms with PD in thin orange on the right axis.

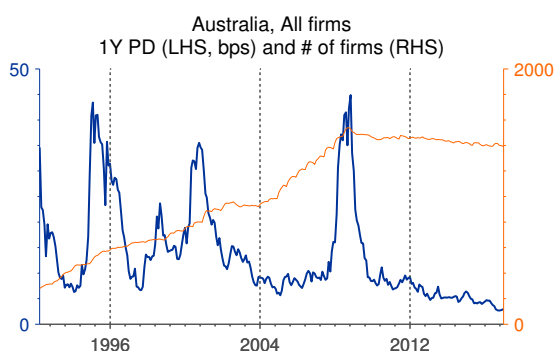
Appendix [C](#) provides common macroeconomic, corporate credit and sovereign risk indicators for each economy along with the RMI-CRI 1-year aggregate PD for financial and non-financial firms. The graphs on the left give historical context to the values, and the table on the right gives the data from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

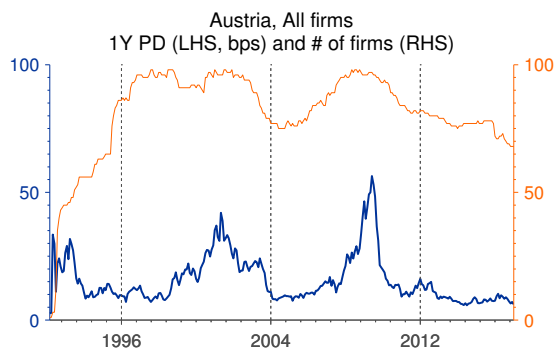
A PD by economies



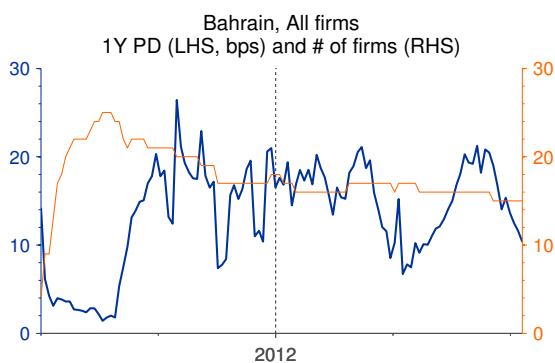
Argentina	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	11	17.3	29.9	25.1	40.3	6.3	14.2
Basic Materials	7	19.2	39.1	47.2	172.4	-0.2	154.6
Communications	3	1.7	3.6	1.5	2.3	-0.2	1.3
Consumer Cyclical	6	6.1	17.0	7.0	44.8	3.0	29.4
Consumer Non-cyclical	15	4.0	39.2	4.5	98.1	0.3	78.0
Diversified	1	14.0	-	22.8	-	8.8	-
Energy	4	8.7	28.0	7.7	51.1	0.3	23.2
Industrial	6	5.2	2.0	5.1	2.9	-0.2	1.9
Technology	1	0.5	-	0.6	-	0.1	-
Utilities	9	6.5	7.2	6.1	9.8	-0.4	8.8



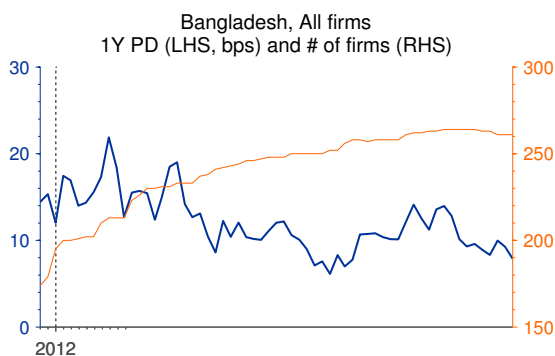
Australia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	146	0.7	20.7	0.8	16.8	0.0	17.4
Basic Materials	484	3.1	28.2	3.9	29.4	0.3	31.4
Communications	85	3.1	10.2	3.5	16.3	0.2	9.4
Consumer Cyclical	76	1.4	18.8	1.6	19.5	0.1	7.9
Consumer Non-cyclical	207	2.0	20.1	1.8	42.4	0.0	29.5
Diversified	7	2.6	3.4	3.1	7.1	0.0	5.3
Energy	154	7.0	46.8	7.3	28.7	-0.1	36.2
Industrial	102	2.8	24.3	2.8	20.4	0.0	11.4
Technology	89	2.1	16.9	3.1	15.4	0.1	7.8
Utilities	13	3.5	8.8	4.0	7.8	-0.0	3.3



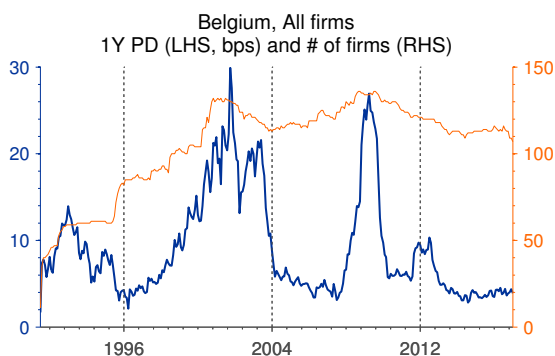
Austria	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	20	4.4	18.8	3.7	14.7	-0.1	5.3
Basic Materials	3	1.5	4.8	2.0	2.8	-0.1	2.1
Communications	1	4.0	-	2.2	-	-1.8	-
Consumer Cyclical	10	8.6	23.5	7.5	48.5	-0.4	27.1
Consumer Non-cyclical	7	13.5	7.7	8.2	8.4	-0.4	3.4
Energy	4	8.9	2.4	5.6	2.8	-3.4	1.2
Industrial	17	9.7	26.6	7.4	30.2	-0.2	6.9
Technology	4	4.0	7.4	5.7	4.8	0.5	3.2
Utilities	2	1.9	1.8	1.8	1.9	-0.1	0.0



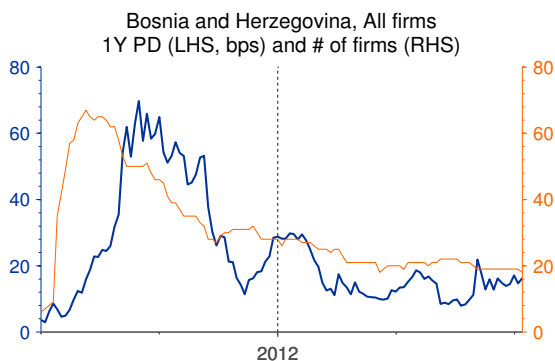
Bahrain	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	45.8	91.7	25.9	75.7	-8.6	49.0
Basic Materials	1	8.5	-	6.7	-	-1.8	-
Communications	1	0.7	-	1.0	-	0.3	-
Consumer Cyclical	2	0.6	0.9	1.1	1.5	0.5	0.7
Industrial	1	13.7	-	9.0	-	-4.7	-



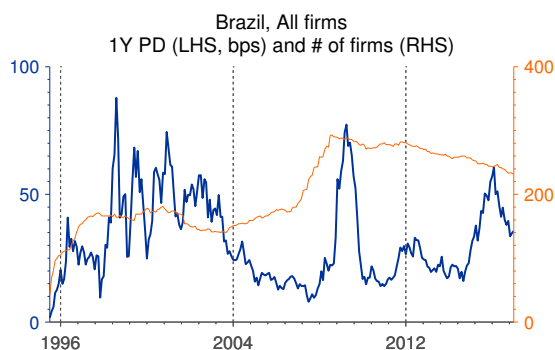
Bangladesh	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	96	19.6	46.5	14.6	32.5	-1.8	22.9
Basic Materials	15	4.5	18.1	2.6	10.1	-0.0	12.8
Communications	7	1.1	12.6	1.3	11.2	-0.1	1.8
Consumer Cyclical	58	10.2	29.7	7.6	46.8	-0.3	28.6
Consumer Non-cyclical	41	4.7	24.3	7.2	26.5	0.0	16.3
Diversified	1	36.9	-	62.9	-	26.0	-
Energy	5	5.0	9.8	6.6	6.9	0.8	4.2
Industrial	29	5.0	18.8	6.1	16.4	-0.5	8.7
Technology	1	1.4	-	0.9	-	-0.5	-
Utilities	7	2.6	8.8	2.8	17.5	0.0	8.8



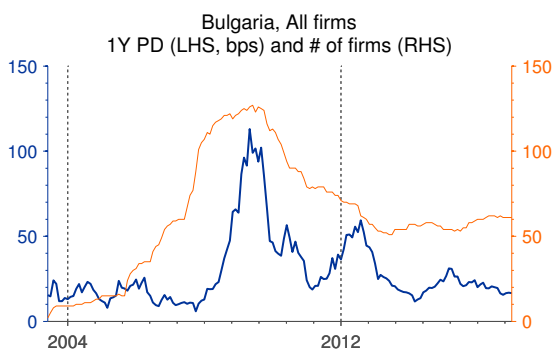
Belgium	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	30	1.8	99.5	1.9	92.1	0.1	8.5
Basic Materials	7	7.2	13.3	10.6	8.8	-0.7	5.8
Communications	7	5.5	52.2	4.0	86.6	-0.6	34.4
Consumer Cyclical	6	3.5	2.2	3.6	2.8	0.2	0.7
Consumer Non-cyclical	24	5.1	10.3	3.9	7.4	0.3	7.0
Diversified	4	0.6	2.3	0.7	1.5	-0.0	0.8
Energy	2	55.6	50.9	52.3	37.4	-3.4	13.6
Industrial	20	6.0	20.4	8.0	22.6	-0.1	7.1
Technology	5	2.5	3.9	2.7	4.3	-0.1	2.5
Utilities	2	1.1	0.0	1.0	0.1	-0.1	0.1



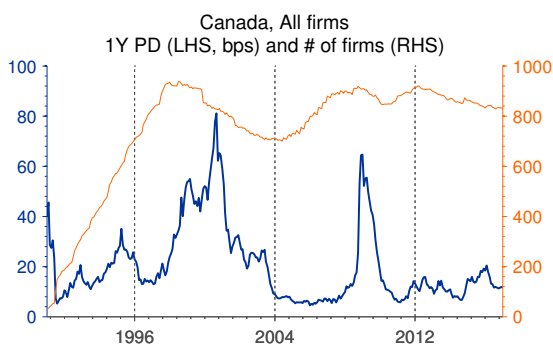
Bosnia and Herzegovina	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	2	24.1	8.4	31.8	17.9	7.7	9.5
Basic Materials	1	9.9	-	12.8	-	3.0	-
Communications	2	4.6	4.2	5.4	4.7	0.8	0.5
Consumer Cyclical	1	6.7	-	8.5	-	1.8	-
Consumer Non-cyclical	3	7.4	4.4	7.0	6.3	-0.4	2.5
Energy	2	20.6	17.6	24.1	22.6	3.6	5.0
Industrial	2	49.5	18.4	63.3	27.6	13.8	9.2
Utilities	5	22.3	60.3	44.9	44.0	3.2	20.8



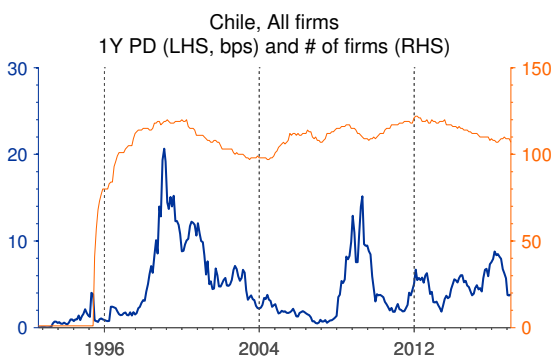
Brazil	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	55	51.1	274.5	42.9	811.2	-0.4	567.2
Basic Materials	16	42.1	176.1	35.0	289.8	-10.7	124.3
Communications	6	8.3	53.2	8.4	40.0	0.4	27.1
Consumer Cyclical	43	23.6	395.2	22.1	407.6	-0.0	144.6
Consumer Non-cyclical	41	21.7	100.1	15.6	247.5	0.7	208.1
Diversified	6	66.7	89.3	49.7	79.6	-12.8	11.5
Energy	8	20.6	1058.7	11.9	308.2	-1.7	991.1
Industrial	25	90.8	316.8	70.7	402.1	9.4	222.4
Technology	5	6.3	100.6	4.9	71.2	0.1	31.2
Utilities	25	17.8	73.5	16.5	56.0	-0.3	23.1



Bulgaria	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	14	15.5	22.0	17.4	26.2	1.5	12.6
Basic Materials	3	9.8	5.2	15.8	6.6	5.4	1.9
Communications	2	31.6	33.4	25.3	27.5	-6.3	5.9
Consumer Cyclical	2	10.2	3.3	10.4	0.7	0.2	4.0
Consumer Non-cyclical	11	34.8	412.1	24.2	26.9	-3.1	413.1
Diversified	10	27.4	17.7	23.1	14.3	-4.3	17.0
Energy	2	66.1	71.3	54.6	53.4	-11.5	17.9
Industrial	16	9.0	19.5	8.6	13.3	-0.4	10.7
Utilities	1	6.5	-	7.1	-	0.6	-



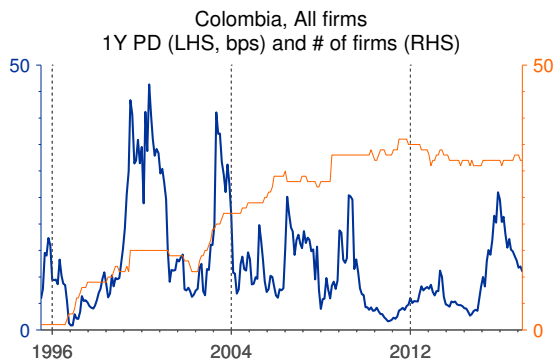
Canada	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	133	3.9	145.0	3.1	240.0	-0.1	142.4
Basic Materials	231	14.8	132.3	19.5	157.8	3.1	140.0
Communications	44	8.2	487.4	9.4	855.0	-0.1	422.5
Consumer Cyclical	62	5.3	168.2	4.7	183.3	-0.1	135.8
Consumer Non-cyclical	101	16.1	550.4	14.9	616.3	0.1	269.1
Diversified	6	9.3	70.3	10.8	88.8	-1.6	53.9
Energy	125	19.5	184.0	11.3	160.4	-2.9	64.0
Industrial	67	8.9	190.5	6.6	90.4	-0.7	169.4
Technology	36	36.1	399.4	26.7	327.5	-0.1	186.7
Utilities	13	8.2	13.2	9.1	23.0	0.9	19.7



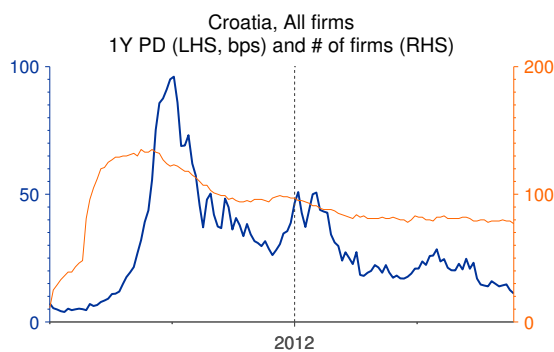
Chile	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	23	8.4	26.1	7.4	31.9	-0.0	15.0
Basic Materials	11	5.7	10.3	4.0	20.3	-0.5	12.1
Communications	3	22.9	20.2	14.4	23.6	6.4	9.1
Consumer Cyclical	10	10.0	26.4	11.4	19.2	-1.1	12.0
Consumer Non-cyclical	22	1.7	35.1	1.5	18.4	-0.4	17.9
Diversified	5	3.5	12.0	2.6	7.3	-0.9	4.9
Energy	1	135.4	-	80.6	-	-54.8	-
Industrial	21	5.1	7.3	2.9	6.2	-0.3	4.8
Technology	1	0.6	-	0.4	-	-0.2	-
Utilities	9	5.3	73.0	3.6	42.3	-1.7	31.0



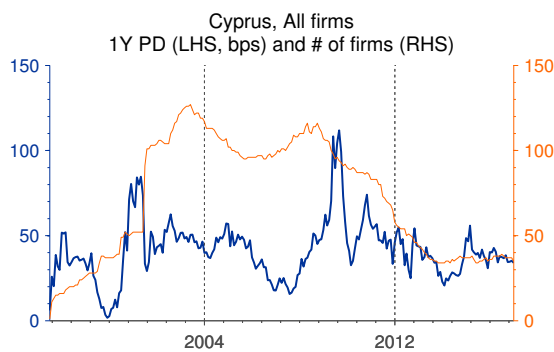
China	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	227	45.8	79.6	41.7	86.5	-0.4	31.0
Basic Materials	319	79.7	84.5	69.7	71.1	-5.9	33.9
Communications	161	24.5	87.4	23.1	146.2	0.3	75.1
Consumer Cyclical	501	51.2	109.2	47.6	136.5	-2.7	62.8
Consumer Non-cyclical	507	32.5	90.5	30.5	96.4	-1.1	25.4
Diversified	30	86.9	72.9	89.1	67.0	-4.6	23.2
Energy	96	74.9	86.9	71.6	114.2	-3.8	69.5
Industrial	797	63.5	85.5	60.6	85.2	-1.9	41.0
Technology	170	31.5	45.6	31.9	53.3	0.4	24.0
Utilities	74	80.5	96.1	71.6	87.6	-7.1	28.0



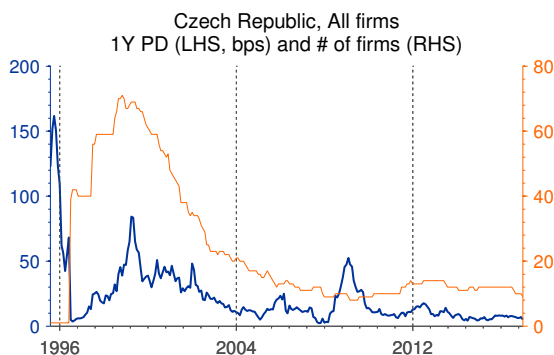
Colombia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	9	28.1	29.7	15.6	32.6	-3.5	5.8
Basic Materials	2	7.9	0.8	7.3	0.2	-0.6	0.5
Communications	1	8.7	-	1.6	-	-7.2	-
Consumer Cyclical	2	96.5	68.0	71.0	38.3	-25.5	29.7
Consumer Non-cyclical	1	0.5	-	0.2	-	-0.3	-
Diversified	2	11.2	7.0	12.4	8.1	1.2	1.1
Energy	3	29.0	12.7	17.9	6.4	-11.0	6.6
Industrial	9	11.9	9.8	11.7	7.7	-1.5	3.1
Utilities	3	3.2	10.3	9.4	6.4	-1.3	11.5



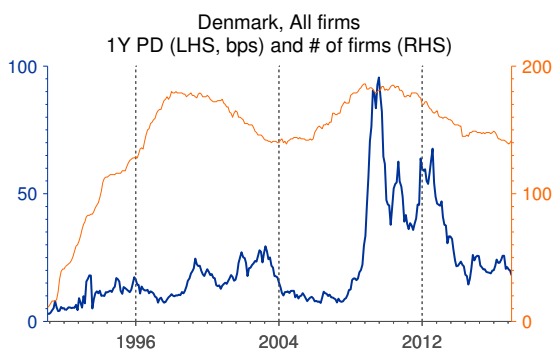
Croatia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	6	8.8	30.3	8.0	7.6	-1.7	23.3
Basic Materials	3	35.4	19.3	42.1	12.9	6.6	6.5
Communications	3	1.4	9.5	1.1	12.0	0.0	2.5
Consumer Cyclical	25	5.9	101.7	5.5	107.8	-0.2	11.2
Consumer Non-cyclical	22	18.1	48.7	17.4	28.9	0.1	41.6
Diversified	1	19.0	-	59.5	-	40.4	-
Energy	2	0.6	0.7	1.4	1.8	0.8	1.1
Industrial	15	37.0	39.4	30.2	28.9	-6.4	20.6



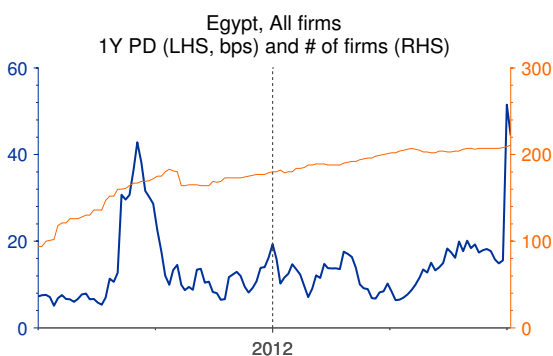
Cyprus	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	11	19.3	165.9	21.1	98.6	-2.3	69.5
Basic Materials	3	25.8	24.6	33.3	12.7	0.2	30.4
Consumer Cyclical	5	17.8	24.6	16.9	27.2	-2.7	10.9
Consumer Non-cyclical	5	34.5	24.7	34.0	25.0	-0.5	19.6
Energy	4	461.0	1218.5	91.0	259.0	-370.0	966.2
Industrial	5	18.8	237.6	14.1	127.8	-4.7	244.1
Technology	2	42.6	45.7	65.1	83.0	22.5	37.4



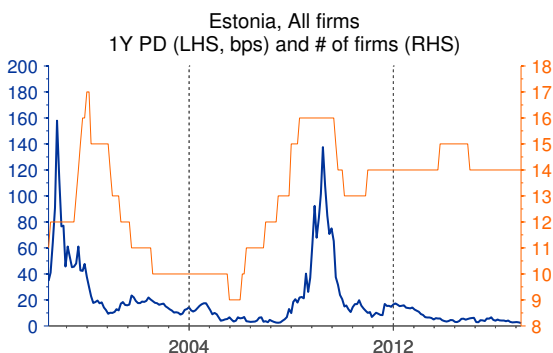
Czech Republic	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	1	21.9	-	22.3	-	0.4	-
Communications	1	4.1	-	3.0	-	-1.1	-
Consumer Cyclical	2	4.9	3.3	5.9	4.6	0.9	1.3
Consumer Non-cyclical	1	4.0	-	4.1	-	0.1	-
Diversified	1	1.1	-	1.2	-	0.0	-
Energy	2	6.4	1.4	7.5	3.5	1.2	2.2
Utilities	1	11.1	-	12.1	-	1.0	-



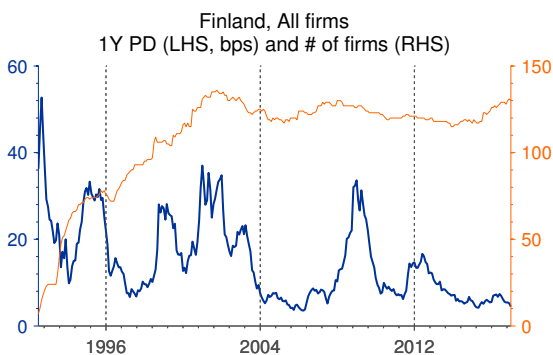
Denmark	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	43	35.1	78.1	27.8	100.0	-4.9	51.9
Basic Materials	1	1.4	-	2.1	-	0.7	-
Communications	8	17.4	16.0	22.9	19.0	2.0	4.2
Consumer Cyclical	15	21.9	51.8	19.4	37.6	-1.3	16.7
Consumer Non-cyclical	28	5.9	36.3	6.0	17.4	0.7	34.0
Diversified	2	3.8	5.2	2.2	3.0	-1.6	2.2
Energy	1	6.3	-	12.8	-	6.4	-
Industrial	31	21.2	37.1	23.0	85.8	0.2	53.5
Technology	8	7.2	119.7	9.9	103.5	1.9	24.7
Utilities	1	24.5	-	51.6	-	27.1	-



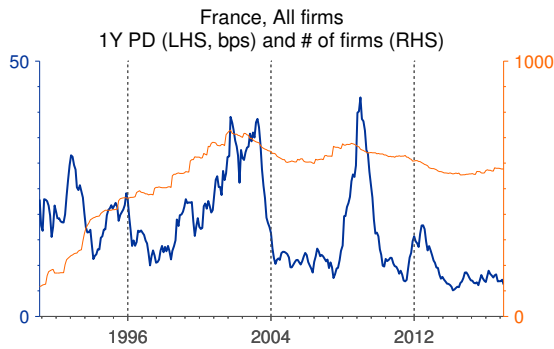
Egypt	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	68	18.8	86.1	52.5	107.6	25.8	62.0
Basic Materials	20	14.3	38.9	42.7	73.7	18.0	52.3
Communications	7	11.4	40.5	50.7	45.1	38.9	41.5
Consumer Cyclical	24	27.5	16.2	57.8	45.5	34.0	35.1
Consumer Non-cyclical	47	6.4	48.7	33.9	78.9	24.5	33.1
Diversified	1	6.2	-	3.1	-	-3.0	-
Energy	1	113.0	-	100.0	-	-13.0	-
Industrial	37	11.7	58.8	43.3	74.1	26.2	39.2
Technology	1	15.5	-	19.1	-	3.7	-
Utilities	1	45.4	-	102.9	-	57.5	-



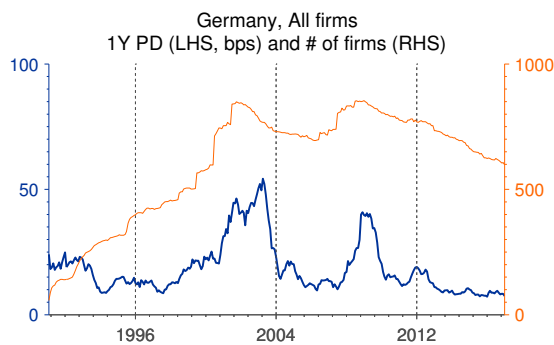
Estonia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	20.1	12.3	19.2	10.4	-0.4	3.6
Communications	1	3.5	-	2.7	-	-0.7	-
Consumer Cyclical	5	0.5	24.2	0.2	22.7	-0.2	4.4
Consumer Non-cyclical	1	16.5	-	21.7	-	5.2	-
Industrial	3	1.8	3.2	1.4	3.4	-0.4	0.2
Utilities	1	0.3	-	0.3	-	0.0	-



Finland	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	18	7.0	10.6	7.9	6.0	-0.0	8.9
Basic Materials	7	6.3	2.1	3.4	1.1	-2.6	1.7
Communications	13	4.3	12.9	5.2	20.4	0.8	10.6
Consumer Cyclical	12	4.2	5.9	3.5	7.9	-0.5	2.5
Consumer Non-cyclical	22	5.4	158.2	5.0	230.5	-0.2	216.4
Energy	2	32.6	44.0	36.0	48.2	3.4	4.2
Industrial	37	5.1	27.6	4.1	28.9	-0.2	4.1
Technology	14	6.7	10.6	6.2	11.2	-0.2	5.0
Utilities	1	3.6	-	3.8	-	0.2	-



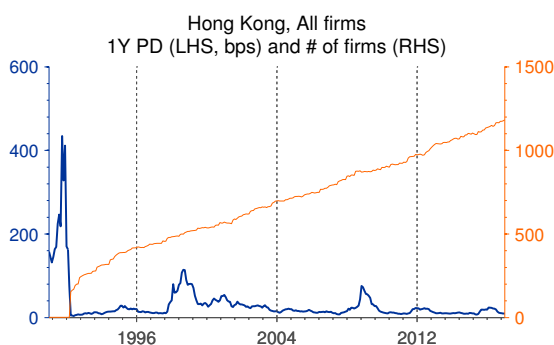
France	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	83	4.9	29.3	4.5	31.2	0.1	10.7
Basic Materials	19	10.3	50.1	10.8	54.5	-0.9	11.1
Communications	59	11.3	140.3	9.2	338.6	-0.3	202.5
Consumer Cyclical	75	7.7	32.2	6.7	72.1	-0.1	59.4
Consumer Non-cyclical	128	5.5	13.8	5.3	13.5	-0.1	6.5
Diversified	8	13.7	44.6	12.8	44.6	-0.5	8.4
Energy	14	11.1	20.9	10.7	36.0	0.5	20.6
Industrial	110	7.0	24.8	5.8	36.8	-0.3	17.3
Technology	65	5.9	17.0	4.6	24.4	0.0	12.2
Utilities	10	4.8	10.7	6.8	11.0	0.4	1.8



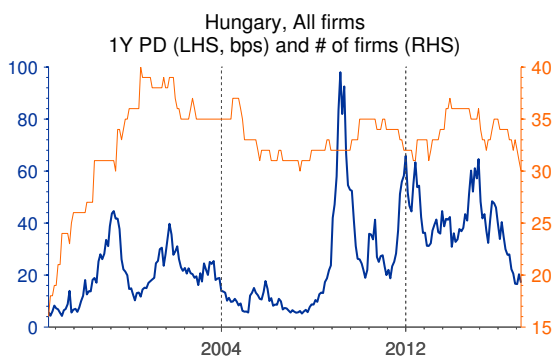
Germany	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	135	9.4	46.3	9.4	82.9	0.6	50.4
Basic Materials	24	5.4	32.0	4.5	25.6	-0.2	9.4
Communications	56	8.8	55.9	10.6	80.2	0.1	35.2
Consumer Cyclical	75	8.1	206.4	7.0	364.6	-0.0	211.4
Consumer Non-cyclical	89	7.3	45.9	6.1	53.0	-0.1	21.6
Diversified	3	53.9	21.7	35.6	30.5	1.4	29.3
Energy	16	11.2	308.4	11.4	760.8	-0.7	503.7
Industrial	120	7.6	169.1	7.2	283.5	-0.0	125.6
Technology	67	6.0	20.1	6.2	16.1	0.1	11.7
Utilities	9	5.4	15.5	5.7	55.9	0.0	52.2



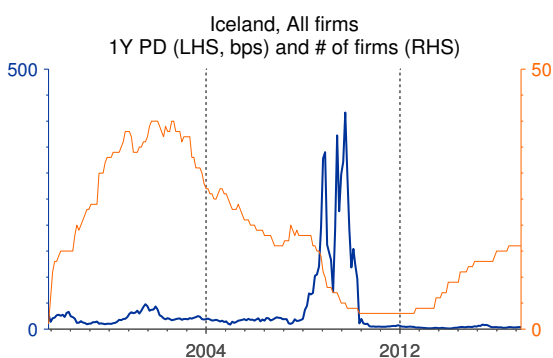
Greece	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	16	35.2	46.0	41.1	140.1	-1.4	114.0
Basic Materials	8	24.3	45.3	24.1	40.5	-3.0	13.4
Communications	7	79.6	100.0	86.6	292.1	-3.3	227.7
Consumer Cyclical	26	26.9	54.9	27.2	36.2	-0.8	24.8
Consumer Non-cyclical	28	39.8	139.5	42.2	54.6	-1.3	114.9
Diversified	1	29.8	-	29.6	-	-0.3	-
Energy	5	28.9	20.1	23.9	27.0	-5.0	9.2
Industrial	40	73.8	233.4	96.5	239.8	2.6	203.2
Technology	7	23.4	27.5	30.1	19.1	-1.2	14.5
Utilities	4	9.6	21.0	6.5	14.0	-3.1	7.1



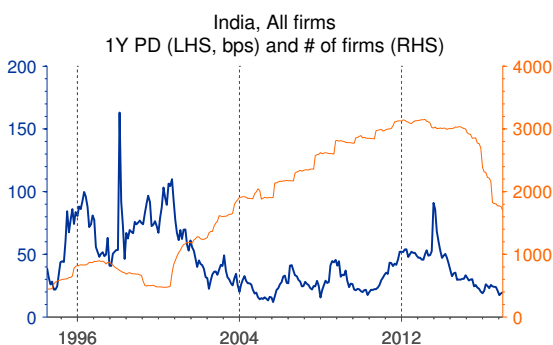
Hong Kong	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	265	11.3	42.6	10.1	35.3	-0.0	22.9
Basic Materials	58	13.7	138.4	13.1	96.1	-0.8	56.3
Communications	75	10.2	42.3	10.1	28.3	0.0	20.8
Consumer Cyclical	254	7.7	123.1	6.7	118.4	-0.4	25.4
Consumer Non-cyclical	150	8.7	90.2	7.5	35.1	-0.2	72.2
Diversified	37	6.6	37.2	6.7	30.9	-0.0	10.2
Energy	39	32.0	78.1	25.2	68.2	-3.7	42.3
Industrial	218	13.3	85.2	12.3	71.1	-0.3	29.2
Technology	54	14.4	50.2	12.7	61.0	-0.8	27.9
Utilities	20	14.7	18.3	12.4	14.9	-0.8	6.3



Hungary	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	8	12.7	42.9	13.2	47.3	1.5	5.0
Communications	3	137.9	126.3	48.8	132.6	-3.3	50.9
Consumer Cyclical	2	18.9	23.2	28.5	34.6	9.6	11.4
Consumer Non-cyclical	6	13.5	17.9	20.2	22.8	2.2	7.2
Diversified	2	43.1	27.0	35.6	3.4	-7.5	23.5
Energy	3	12.0	66.3	13.6	116.8	6.1	50.6
Industrial	1	27.6	-	26.0	-	-1.6	-
Technology	2	19.5	10.0	21.7	5.5	2.2	15.5
Utilities	3	1.8	3.6	1.8	4.2	0.0	0.6



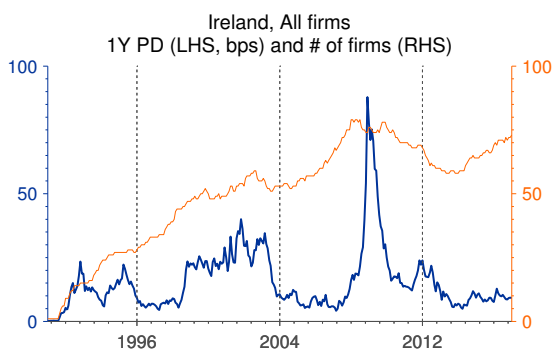
Iceland	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	5.4	2.5	3.9	2.5	0.6	1.4
Communications	2	2.7	0.3	3.4	0.2	0.7	0.5
Consumer Cyclical	2	6.7	8.7	6.6	8.6	-0.0	0.1
Consumer Non-cyclical	2	3.8	1.6	7.2	2.3	3.4	0.6
Energy	1	3.1	-	3.0	-	-0.0	-
Industrial	3	1.6	3.2	1.6	3.9	-0.0	0.8
Technology	1	9.7	-	5.0	-	-4.7	-



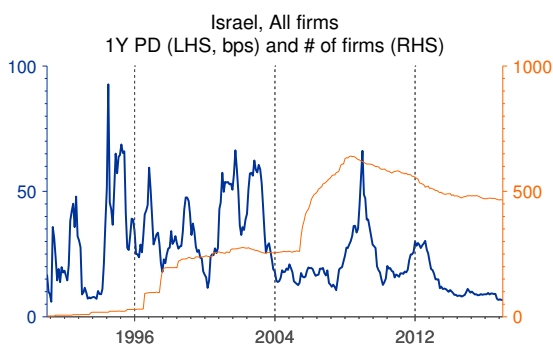
India	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	233	27.1	152.5	30.8	165.3	0.0	57.2
Basic Materials	228	22.5	148.7	21.5	125.0	-0.9	37.2
Communications	72	19.5	87.4	18.2	85.1	-0.4	32.4
Consumer Cyclical	343	20.2	156.2	20.0	112.0	-0.0	62.2
Consumer Non-cyclical	262	14.1	105.3	12.9	105.0	0.0	28.9
Diversified	19	32.1	72.2	31.3	76.0	-6.7	38.3
Energy	35	33.9	99.5	29.3	72.6	-0.5	50.6
Industrial	386	23.4	102.8	21.3	100.2	-0.2	30.4
Technology	79	12.4	149.1	10.0	144.3	-0.8	42.7
Utilities	32	78.0	129.3	45.0	132.6	-9.1	77.3



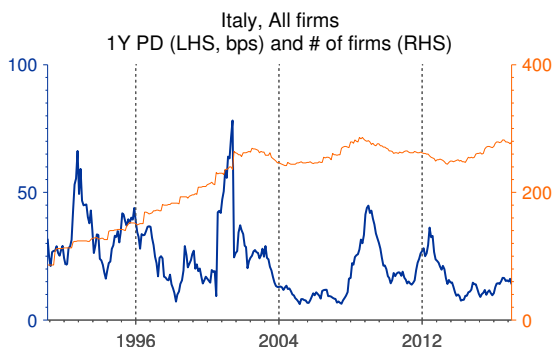
Indonesia	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	117	26.9	37.6	32.2	41.9	0.4	25.1
Basic Materials	40	22.6	116.0	16.9	78.1	0.1	101.0
Communications	25	25.1	108.2	25.9	175.8	1.5	96.0
Consumer Cyclical	62	12.0	35.9	13.2	31.8	0.0	18.8
Consumer Non-cyclical	72	12.4	33.0	15.3	28.8	-0.1	15.1
Diversified	1	93.0	-	107.3	-	14.3	-
Energy	26	16.4	54.1	12.3	52.7	-0.8	19.0
Industrial	62	18.4	76.9	18.0	66.2	-0.1	16.5
Technology	7	4.6	35.8	2.7	29.9	-0.0	6.2
Utilities	1	38.8	-	26.8	-	-12.0	-



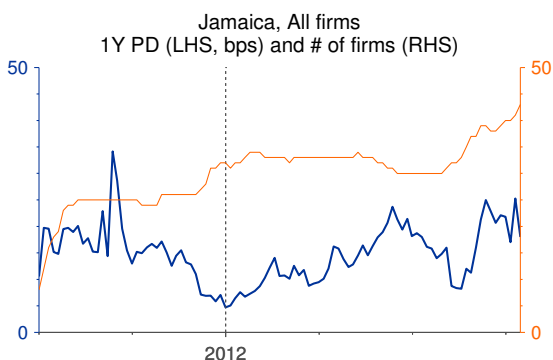
Ireland	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	9	13.3	24.4	12.0	20.0	0.1	10.9
Basic Materials	11	13.4	19.4	28.0	45.6	2.6	34.9
Communications	4	37.9	44.3	62.2	105.8	24.3	63.4
Consumer Cyclical	5	14.3	35.4	9.6	51.2	-0.3	16.2
Consumer Non-cyclical	28	5.4	74.2	5.5	831.3	0.6	809.9
Energy	6	26.0	13.6	26.1	25.4	4.3	15.2
Industrial	6	5.6	15.6	5.4	15.8	-0.2	0.9
Technology	1	0.0	-	0.0	-	0.0	-



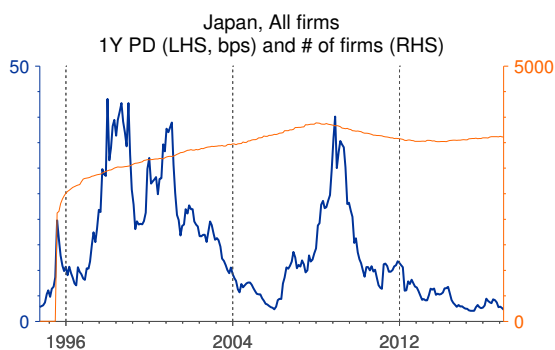
Israel	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	115	6.9	88.6	7.4	106.8	0.4	71.3
Basic Materials	14	7.4	34.4	6.2	52.0	-0.1	20.0
Communications	32	11.6	81.5	11.3	88.8	-0.1	53.9
Consumer Cyclical	50	6.4	37.5	6.7	34.7	0.0	26.8
Consumer Non-cyclical	101	7.8	41.6	9.2	39.2	0.1	29.1
Diversified	9	6.7	16.4	6.2	20.0	0.4	4.8
Energy	28	5.7	38.2	4.4	28.6	-0.5	22.2
Industrial	80	6.1	91.0	5.5	47.4	-0.1	50.8
Technology	34	2.9	23.0	2.6	40.3	-0.0	21.0



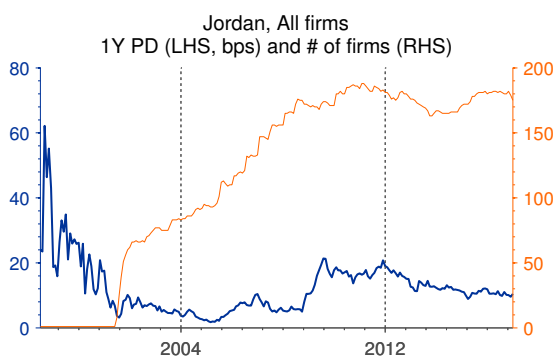
Italy	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	53	39.5	94.2	27.8	89.4	-5.7	39.3
Basic Materials	4	9.6	5.9	11.6	6.1	2.3	3.0
Communications	36	21.1	24.5	16.7	24.9	-0.2	23.2
Consumer Cyclical	48	11.1	51.6	12.3	27.6	-0.1	44.7
Consumer Non-cyclical	40	8.0	44.0	9.5	37.2	0.5	17.2
Diversified	2	22.5	10.1	17.0	7.1	-5.5	3.0
Energy	17	17.5	82.5	13.1	60.6	-2.4	47.8
Industrial	47	12.9	74.9	13.7	42.5	-0.1	37.7
Technology	15	13.2	23.0	9.0	9.3	-1.1	16.3
Utilities	12	6.3	43.5	8.5	16.4	1.2	27.5



Jamaica	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	13	27.1	33.7	19.7	30.6	-3.0	8.1
Basic Materials	2	9.0	11.7	70.9	74.9	61.9	86.6
Communications	3	107.9	21.4	46.6	60.2	-36.6	45.7
Consumer Cyclical	5	4.9	8.6	2.4	13.8	0.2	5.7
Consumer Non-cyclical	11	21.2	23.4	19.2	27.2	0.0	6.2
Diversified	3	38.7	8.9	46.3	14.6	15.8	9.8
Industrial	3	0.7	1.0	0.9	1.0	0.2	0.1



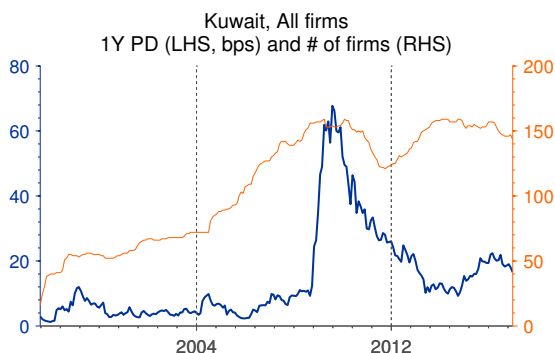
Japan	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	336	10.7	28.0	8.6	21.9	-1.2	12.9
Basic Materials	237	3.7	7.9	3.0	5.1	-0.6	4.4
Communications	271	1.7	10.4	1.8	8.2	-0.0	4.8
Consumer Cyclical	846	3.2	10.2	2.3	8.3	-0.3	6.2
Consumer Non-cyclical	609	1.0	5.8	1.0	5.8	-0.0	2.9
Diversified	3	26.4	13.4	16.0	8.9	-0.2	10.3
Energy	17	6.0	14.0	3.9	9.1	-2.3	5.2
Industrial	960	3.4	10.7	2.6	10.1	-0.4	4.7
Technology	296	1.7	11.6	1.6	18.4	-0.0	9.7
Utilities	21	8.0	15.7	6.9	19.1	-1.8	9.3



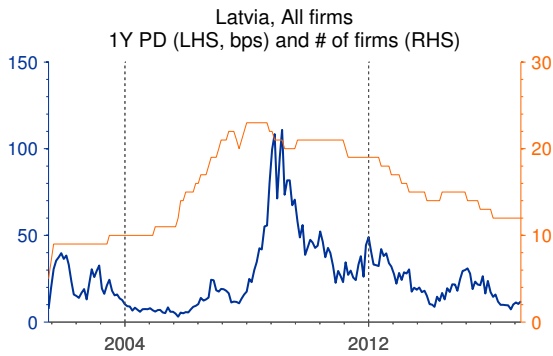
Jordan	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	89	9.2	30.5	8.4	35.4	-0.1	29.0
Basic Materials	14	24.5	27.2	29.9	37.7	2.9	17.1
Communications	2	34.8	8.7	40.9	24.3	6.0	15.5
Consumer Cyclical	16	13.5	45.0	11.7	77.7	-0.1	53.1
Consumer Non-cyclical	24	8.6	36.4	8.3	41.3	-0.1	16.7
Diversified	2	31.2	41.9	31.8	44.0	0.6	2.1
Energy	2	4.6	6.3	4.7	6.5	0.2	0.2
Industrial	20	14.1	124.0	19.4	129.0	-0.3	18.2
Technology	1	53.5	-	21.1	-	-32.3	-
Utilities	2	34.1	3.0	32.2	6.5	-1.9	9.5



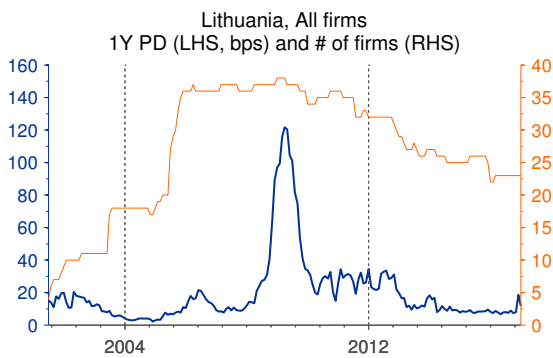
Kazakhstan	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	123.1	77.1	95.5	66.3	-18.9	13.5
Basic Materials	1	9.6	-	6.8	-	-2.8	-
Communications	1	5.8	-	1.7	-	-4.1	-
Energy	2	2.4	2.5	0.7	0.5	-1.7	2.0
Utilities	1	9.0	-	2.7	-	-6.4	-



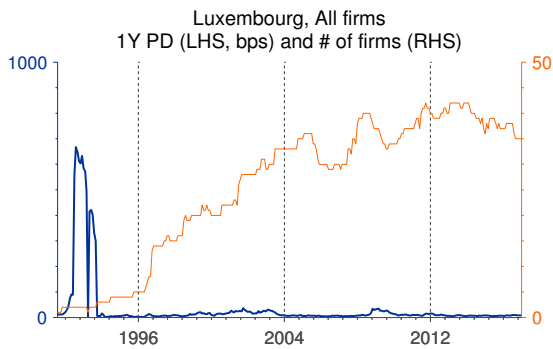
Kuwait	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	78	21.4	33.1	20.5	43.0	-1.5	31.5
Basic Materials	4	3.4	18.8	2.4	8.7	-0.9	10.0
Communications	6	7.0	31.1	5.3	22.7	-2.0	9.4
Consumer Cyclical	13	25.0	29.3	18.1	21.8	-3.8	17.8
Consumer Non-cyclical	11	3.7	31.1	3.7	24.1	-0.8	7.6
Diversified	5	11.9	12.5	12.4	8.9	0.1	8.1
Energy	6	49.9	49.3	49.3	51.6	-0.2	27.3
Industrial	19	19.0	16.6	14.4	14.6	-0.1	6.3



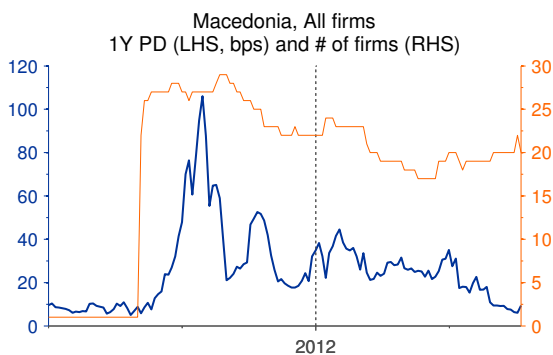
Latvia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Communications	1	2.1	–	1.8	–	-0.3	–
Consumer Cyclical	2	109.9	122.7	78.5	76.3	-31.4	46.4
Consumer Non-cyclical	4	9.2	4.8	9.6	5.5	0.4	1.1
Industrial	4	12.5	8.8	20.1	9.7	4.0	3.7
Utilities	1	2.5	–	4.2	–	1.7	–



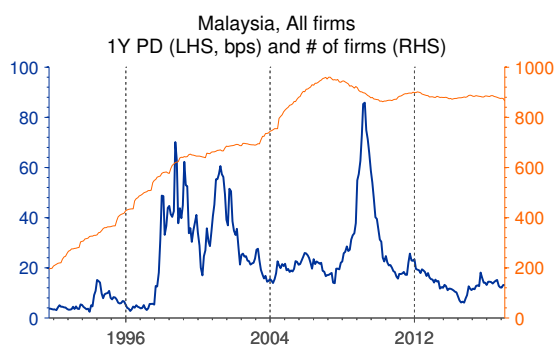
Lithuania	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	7.3	38.8	4.7	20.1	-0.1	20.1
Basic Materials	1	0.9	–	1.9	–	1.0	–
Communications	1	7.4	–	8.9	–	1.5	–
Consumer Cyclical	3	34.0	27.6	30.8	26.2	-2.1	1.8
Consumer Non-cyclical	7	7.3	17.2	11.6	20.2	0.1	9.0
Energy	1	0.9	–	1.4	–	0.5	–
Industrial	2	38.5	15.7	41.5	15.9	2.9	0.2
Utilities	3	19.7	20.2	19.0	19.6	-0.7	0.7



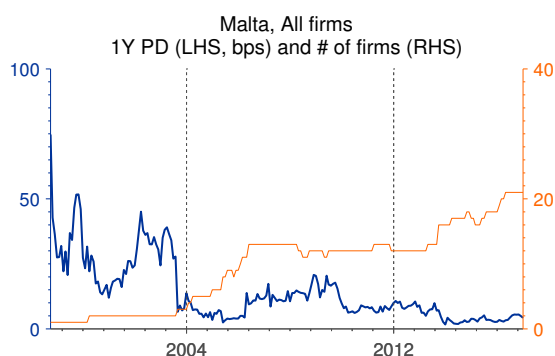
Luxembourg	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	9.4	162.9	9.2	31.8	-0.3	136.0
Basic Materials	5	12.9	19.8	11.0	14.4	-2.9	5.5
Communications	4	8.9	706.3	13.7	685.0	0.6	21.7
Consumer Cyclical	2	189.9	262.6	206.7	286.8	16.8	24.2
Consumer Non-cyclical	4	5.3	22.8	6.0	20.6	-0.2	2.4
Industrial	7	10.0	22.6	13.2	72.1	0.8	51.6
Technology	3	1.3	1.5	1.2	1.4	0.0	0.2



Macedonia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	7	10.5	69.6	10.5	65.8	-1.9	5.3
Basic Materials	2	32.4	11.2	23.0	4.3	-9.4	6.9
Communications	1	2.8	–	2.9	–	0.1	–
Consumer Cyclical	2	4.5	6.3	6.0	8.3	1.4	2.0
Consumer Non-cyclical	4	2.4	1.6	2.0	2.3	0.1	1.1
Industrial	1	44.4	–	49.2	–	4.8	–
Utilities	1	21.8	–	26.8	–	5.0	–



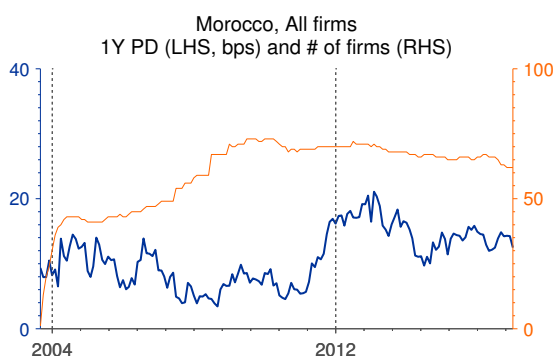
Malaysia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	124	10.6	87.5	11.8	116.6	0.1	35.3
Basic Materials	65	16.3	240.6	16.1	241.6	0.0	33.1
Communications	35	8.0	73.1	11.2	75.2	0.1	42.5
Consumer Cyclical	108	12.3	34.9	15.2	44.2	0.2	15.3
Consumer Non-cyclical	144	4.3	182.8	3.5	125.9	-0.0	105.3
Diversified	25	6.1	164.7	8.1	241.5	0.0	84.1
Energy	28	46.0	327.7	45.8	304.1	-0.0	69.8
Industrial	268	14.9	77.5	14.8	119.8	-0.1	73.0
Technology	55	21.1	47.1	24.3	61.6	0.0	24.4
Utilities	6	6.1	6.0	3.3	28.7	-1.0	23.1



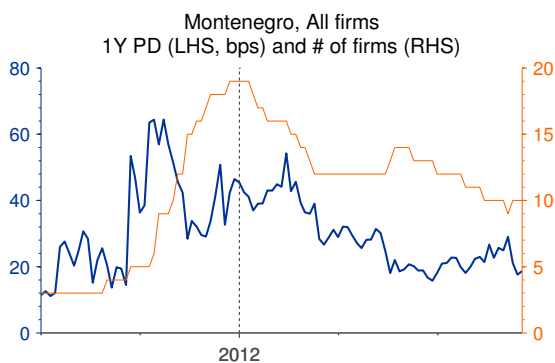
Malta	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	10	5.6	8.7	4.4	7.9	-0.5	2.5
Communications	2	5.0	1.9	5.6	0.9	0.6	1.0
Consumer Cyclical	5	6.0	5.7	2.0	6.5	-1.1	2.6
Consumer Non-cyclical	2	2.8	3.6	1.9	2.1	-1.0	1.5
Energy	1	48.2	-	31.6	-	-16.5	-
Industrial	1	0.0	-	0.1	-	0.0	-



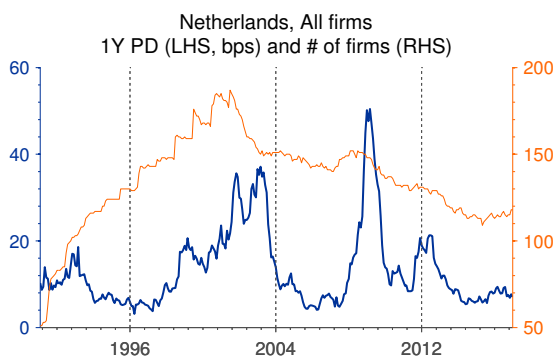
Mexico	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	28	1.9	25.4	4.5	28.3	1.1	7.9
Basic Materials	11	2.9	13.7	6.3	7.9	0.4	10.6
Communications	5	26.9	55.3	17.4	73.5	0.0	20.2
Consumer Cyclical	21	1.3	40.4	2.5	53.3	0.6	14.0
Consumer Non-cyclical	16	2.0	6.4	1.0	9.5	0.2	4.7
Diversified	5	5.9	6.9	7.3	8.6	0.8	2.3
Industrial	16	1.5	328.9	3.1	252.4	0.0	78.9
Utilities	2	0.6	0.8	5.9	7.7	5.3	6.9



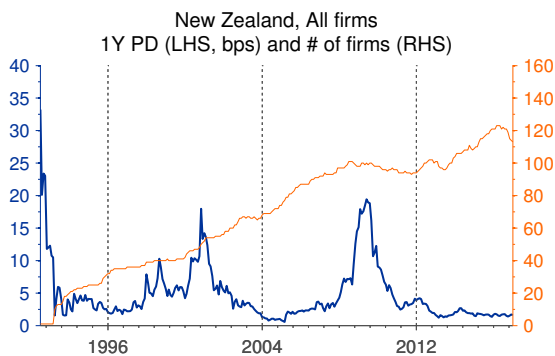
Morocco	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	17	15.7	17.6	12.7	14.6	-3.0	5.1
Basic Materials	9	42.4	26.9	23.6	17.2	-15.0	13.0
Communications	1	0.1	-	0.1	-	-0.0	-
Consumer Cyclical	7	35.1	37.8	15.7	37.4	-3.4	7.8
Consumer Non-cyclical	9	13.1	10.2	7.2	6.7	-1.5	4.3
Energy	1	2.4	-	1.5	-	-0.8	-
Industrial	10	26.9	61.8	15.4	52.8	-1.1	16.4
Technology	4	14.4	6.4	13.1	6.0	-2.7	1.4
Utilities	3	6.7	14.2	4.7	19.2	-0.0	5.3



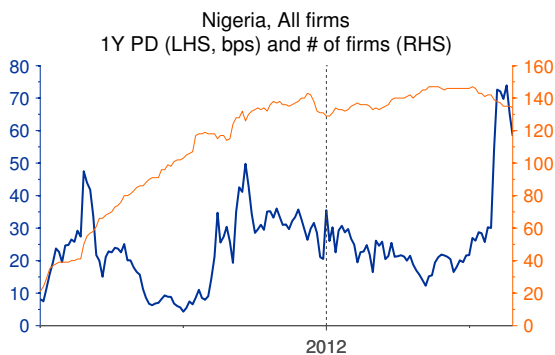
Montenegro	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Communications	1	4.3	-	5.7	-	1.4	-
Consumer Cyclical	2	15.3	19.6	8.1	7.3	-7.2	12.3
Consumer Non-cyclical	3	35.6	5.5	29.0	9.6	-6.7	4.2
Energy	1	32.6	-	25.7	-	-6.9	-
Utilities	2	11.8	12.3	14.0	11.6	2.2	0.7



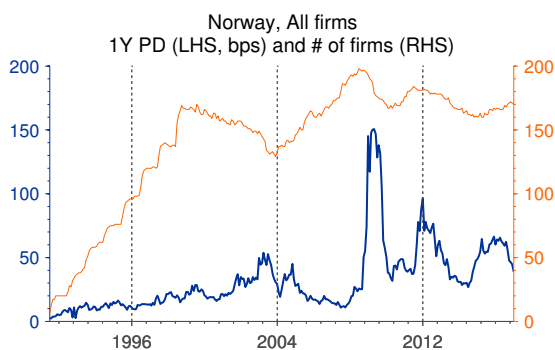
Netherlands	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	20	19.6	43.7	11.6	43.5	-2.2	12.1
Basic Materials	6	2.1	51.8	1.8	59.7	-0.2	9.8
Communications	11	12.7	129.9	10.9	110.5	0.0	25.1
Consumer Cyclical	10	8.0	64.1	7.4	231.1	0.9	167.4
Consumer Non-cyclical	29	3.9	35.6	4.9	35.8	0.1	9.0
Energy	7	12.8	14.2	8.5	9.4	-1.1	8.2
Industrial	18	10.8	97.7	9.9	15.9	-0.3	95.9
Technology	13	4.4	38.7	4.6	29.2	0.1	32.7



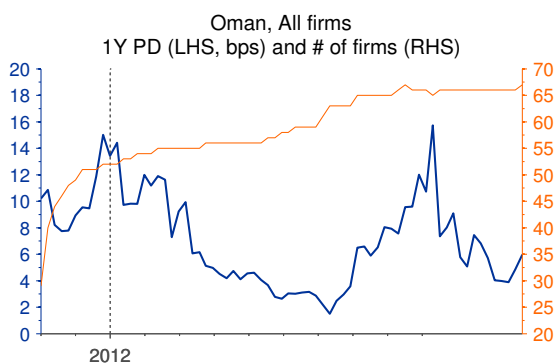
New Zealand	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	17	0.3	65.5	0.2	61.5	0.0	8.1
Basic Materials	2	42.8	1.3	27.2	4.6	-15.6	5.9
Communications	7	9.2	41.4	9.9	32.5	0.1	11.1
Consumer Cyclical	15	1.0	16.5	1.2	16.4	0.2	4.6
Consumer Non-cyclical	31	1.3	200.6	1.5	405.0	0.0	204.7
Diversified	2	116.4	163.2	33.2	46.1	-83.1	117.1
Energy	4	3.4	12.4	7.6	7.5	-0.4	8.2
Industrial	17	1.3	11.8	1.9	17.0	0.3	11.2
Technology	11	2.1	22.6	7.6	21.9	2.3	6.4
Utilities	6	0.8	0.8	0.8	0.7	0.0	0.2



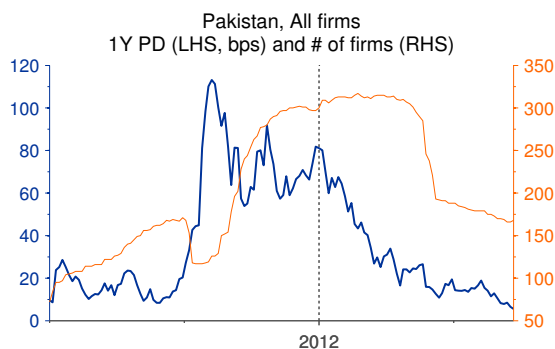
Nigeria	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	47	94.3	212.3	77.1	211.4	-7.1	42.8
Basic Materials	10	53.3	132.8	48.2	96.3	-2.7	77.7
Communications	4	45.1	113.4	41.8	64.7	-5.3	49.9
Consumer Cyclical	12	145.6	211.4	131.0	237.7	-5.0	66.3
Consumer Non-cyclical	30	40.4	141.0	40.9	137.2	-2.7	24.5
Energy	9	50.2	258.7	36.9	106.4	-10.4	154.9
Industrial	18	71.1	235.3	57.5	183.7	-1.7	60.4
Technology	2	334.2	359.9	164.4	137.9	-169.8	222.1



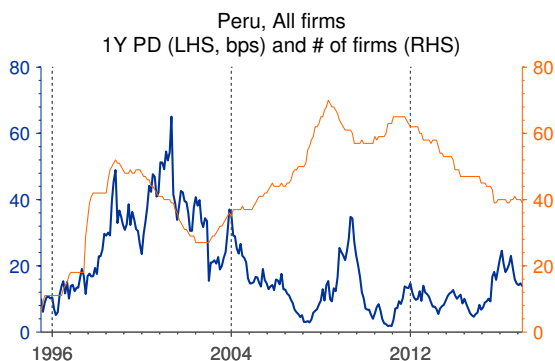
Norway	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	39	64.5	246.5	38.5	80.6	-7.2	247.7
Basic Materials	5	17.1	58.1	9.3	106.9	-5.9	53.6
Communications	7	16.8	50.2	28.7	123.0	1.2	74.1
Consumer Cyclical	6	12.9	31.8	16.5	30.3	1.3	5.2
Consumer Non-cyclical	22	8.6	58.2	8.5	92.4	-0.6	48.2
Energy	29	130.4	429.0	74.3	80.6	-27.8	426.5
Industrial	50	80.4	166.3	64.7	325.9	-4.4	272.5
Technology	8	21.1	12.0	19.1	46.0	1.3	43.9
Utilities	2	6.9	6.3	8.0	8.9	1.1	2.5



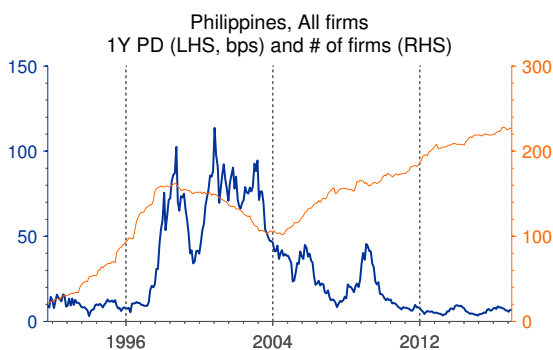
Oman	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	25	26.0	15.7	19.2	15.6	-1.1	7.1
Basic Materials	4	6.9	12.1	6.9	13.2	0.2	1.2
Communications	2	0.2	0.2	0.3	0.4	0.1	0.1
Consumer Cyclical	1	1.3	-	1.2	-	-0.1	-
Consumer Non-cyclical	8	2.7	12.0	4.1	12.9	-0.2	2.2
Diversified	1	0.0	-	0.0	-	0.0	-
Energy	5	1.2	108.3	0.9	208.5	-0.0	100.2
Industrial	12	1.6	33.3	2.2	31.4	-0.1	7.9
Utilities	8	2.3	0.8	2.0	0.9	0.0	1.0



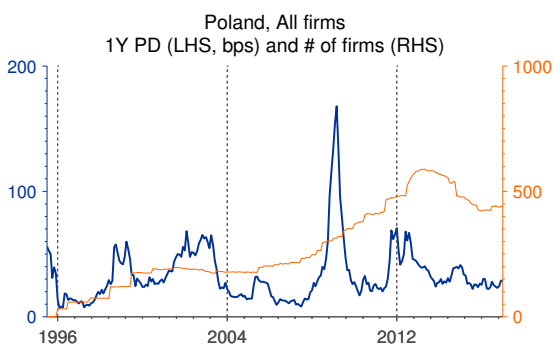
Pakistan	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	34	48.6	74.5	29.0	56.2	-9.9	33.2
Basic Materials	21	8.0	54.4	5.6	50.3	-1.4	12.8
Communications	3	13.0	75.1	14.7	98.5	1.8	23.4
Consumer Cyclical	34	9.6	85.2	7.0	73.8	-0.1	32.2
Consumer Non-cyclical	27	1.2	10.1	0.7	12.9	-0.2	11.7
Energy	10	3.5	15.1	3.2	11.9	-1.3	3.8
Industrial	27	4.0	11.3	2.0	9.0	-0.1	5.8
Technology	1	7.8	-	7.3	-	-0.5	-
Utilities	9	17.4	33.6	15.1	36.4	-0.4	20.2



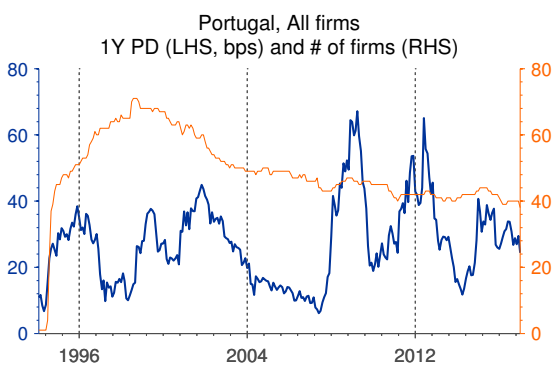
Peru	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	8	16.4	12.4	13.9	10.2	-3.1	4.8
Basic Materials	12	12.8	14.4	16.4	11.3	-0.8	10.3
Communications	1	11.3	-	20.5	-	9.2	-
Consumer Cyclical	2	8.7	8.9	7.0	6.9	-1.7	2.0
Consumer Non-cyclical	6	8.7	20.5	7.8	21.0	0.0	0.9
Diversified	2	19.8	1.3	27.2	11.0	7.5	12.4
Energy	2	45.2	62.8	67.7	94.4	22.5	31.6
Industrial	2	19.0	3.5	19.7	6.5	0.8	3.0
Utilities	4	1.8	9.9	1.7	8.8	-0.7	1.3



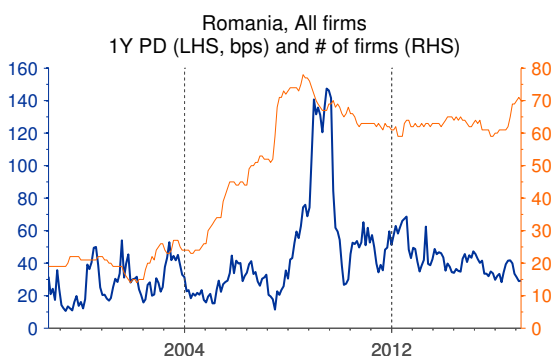
Philippines	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	73	9.0	24.6	10.4	21.1	-0.1	8.1
Basic Materials	24	8.0	33.3	5.6	37.0	-0.2	12.8
Communications	14	5.1	22.9	6.1	19.0	0.4	7.0
Consumer Cyclical	29	6.7	15.4	4.0	17.6	0.3	8.8
Consumer Non-cyclical	31	5.6	34.5	4.8	31.5	-0.3	9.7
Diversified	16	1.3	18.0	1.2	15.2	-0.0	3.3
Energy	11	5.2	14.0	7.3	14.7	0.1	4.1
Industrial	11	14.3	29.9	8.5	24.9	-1.8	7.4
Technology	4	1.8	2.3	3.5	2.7	0.9	1.2
Utilities	12	3.7	10.8	4.6	10.4	0.3	5.3



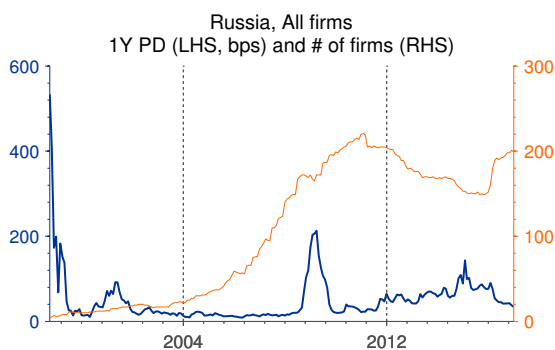
Poland	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	83	27.0	96.9	33.1	115.0	6.8	77.3
Basic Materials	26	13.7	17.9	17.0	23.3	2.5	9.4
Communications	30	26.4	108.0	39.4	122.1	5.4	85.1
Consumer Cyclical	55	18.5	139.5	24.2	113.9	2.3	36.1
Consumer Non-cyclical	59	21.3	56.6	30.1	40.9	5.8	44.3
Energy	14	41.7	78.4	35.3	267.6	-5.3	243.6
Industrial	117	25.2	138.9	33.6	156.6	3.8	103.0
Technology	39	12.0	90.3	16.3	145.6	2.4	90.2
Utilities	9	30.6	27.1	37.3	25.5	2.6	10.7



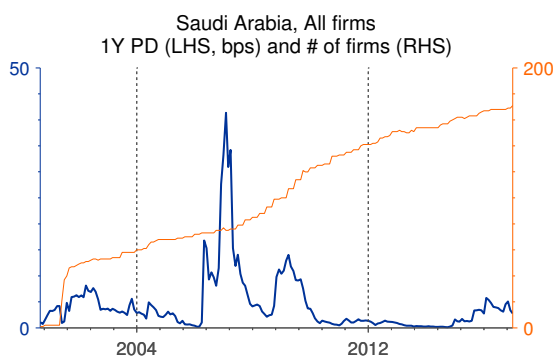
Portugal	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	96.7	72.2	140.7	68.6	-1.0	35.5
Basic Materials	6	11.4	17.9	7.4	25.6	-2.8	8.7
Communications	5	15.6	24.2	19.4	25.3	2.8	4.2
Consumer Cyclical	5	94.8	61.5	50.2	63.5	-0.5	42.6
Consumer Non-cyclical	5	18.5	21.6	10.8	27.3	-0.1	7.6
Diversified	2	55.4	70.6	59.0	78.1	3.6	7.6
Energy	1	4.5	-	3.0	-	-1.5	-
Industrial	7	59.5	58.0	53.5	52.7	-5.6	27.8
Technology	2	19.3	19.9	22.3	27.3	3.0	7.4
Utilities	2	5.2	1.7	5.1	3.9	-0.1	2.2



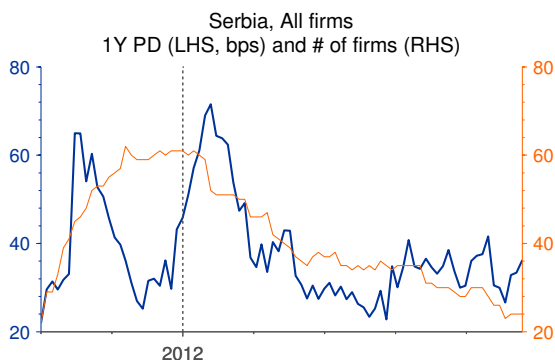
Romania	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	7	24.2	96.8	27.8	59.4	-1.8	43.4
Basic Materials	6	47.8	24.5	49.6	23.2	1.2	11.8
Communications	1	12.1	-	13.5	-	1.4	-
Consumer Cyclical	9	21.8	19.4	24.8	22.3	1.3	5.0
Consumer Non-cyclical	10	17.4	41.2	19.1	31.5	-0.2	17.1
Energy	7	16.5	327.4	9.9	339.7	-1.5	13.4
Industrial	23	50.5	42.0	36.5	53.0	-6.1	20.3
Utilities	4	3.6	2.7	2.5	2.3	-0.7	0.7



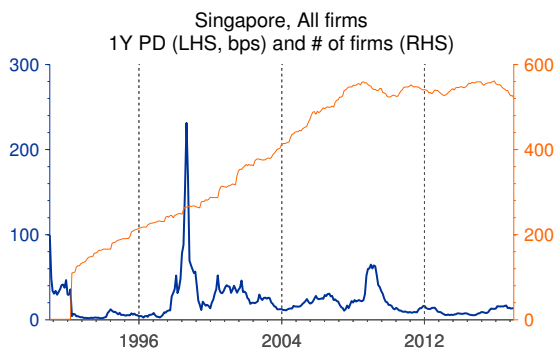
Russia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	19	58.6	41.9	54.1	36.6	-3.7	17.4
Basic Materials	33	24.5	33.9	18.5	28.9	-3.0	16.8
Communications	12	28.1	27.5	18.9	32.8	-4.5	9.3
Consumer Cyclical	17	68.0	57.1	44.3	53.8	-2.8	33.5
Consumer Non-cyclical	26	30.4	63.7	27.5	65.0	-1.2	32.4
Diversified	2	67.3	33.5	99.4	81.3	32.1	47.8
Energy	16	23.5	35.4	16.7	20.2	-4.6	17.5
Industrial	17	41.5	86.3	34.0	65.6	-3.0	29.0
Technology	3	56.0	41.0	40.3	23.5	-1.9	26.0
Utilities	50	52.8	44.0	54.1	48.8	-4.8	24.4



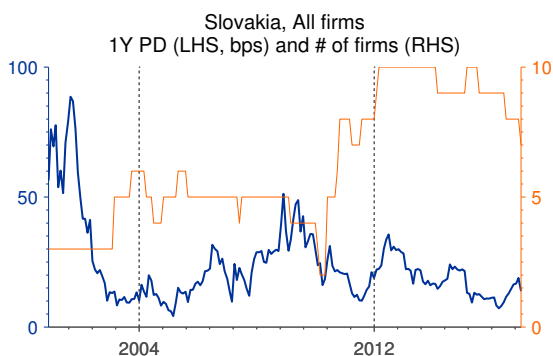
Saudi Arabia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	60	1.6	12.3	0.7	6.7	-0.8	6.2
Basic Materials	18	21.3	32.5	11.0	15.6	-11.4	17.6
Communications	7	48.6	27.6	36.7	17.3	-10.8	16.0
Consumer Cyclical	18	2.8	15.4	2.4	10.5	-1.2	5.2
Consumer Non-cyclical	24	5.7	11.5	3.3	6.1	-1.6	5.6
Diversified	3	22.1	0.7	12.8	0.4	-9.3	1.1
Energy	2	9.4	0.7	6.1	0.9	-3.3	1.7
Industrial	34	4.2	31.1	2.5	19.6	-1.2	14.2
Utilities	1	22.6	-	14.8	-	-7.8	-



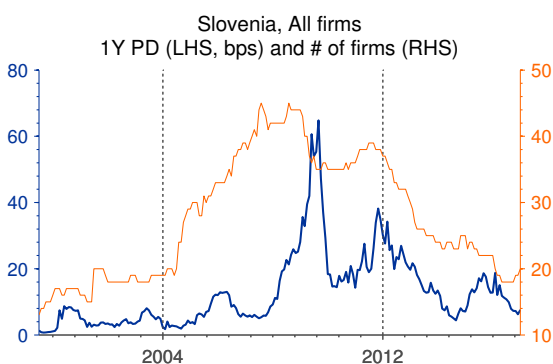
Serbia	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	26.1	17.3	39.7	3.4	13.6	14.4
Basic Materials	3	4.6	16.9	4.0	14.8	-0.6	2.1
Consumer Cyclical	3	9.3	53.1	3.5	63.0	0.0	10.5
Consumer Non-cyclical	3	56.4	68.5	56.6	161.6	5.6	94.3
Diversified	1	8.1	-	6.6	-	-1.5	-
Energy	1	13.1	-	8.6	-	-4.4	-
Industrial	9	32.5	69.7	40.1	52.0	4.3	23.5



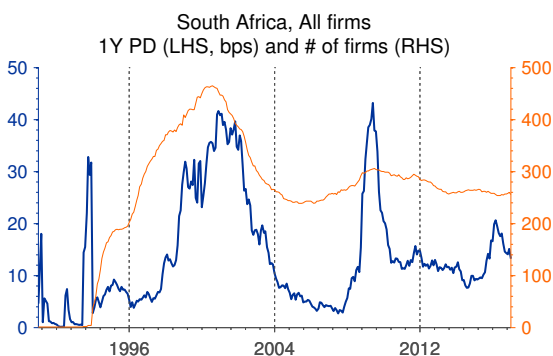
Singapore	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	104	2.5	53.3	2.7	44.7	-0.0	31.3
Basic Materials	27	23.0	86.6	15.2	66.6	-0.0	46.6
Communications	22	13.2	118.5	14.0	122.6	0.0	80.8
Consumer Cyclical	70	11.7	58.8	14.8	110.7	0.1	78.2
Consumer Non-cyclical	70	9.0	226.5	10.3	285.3	-0.1	79.8
Diversified	13	9.6	66.9	12.2	66.2	1.7	15.6
Energy	25	59.3	165.3	48.7	207.4	-0.0	111.4
Industrial	157	23.1	229.8	24.2	93.9	-0.0	190.1
Technology	24	8.0	101.8	7.3	143.7	-0.0	85.8
Utilities	3	27.2	61.0	22.9	114.1	-0.1	53.9



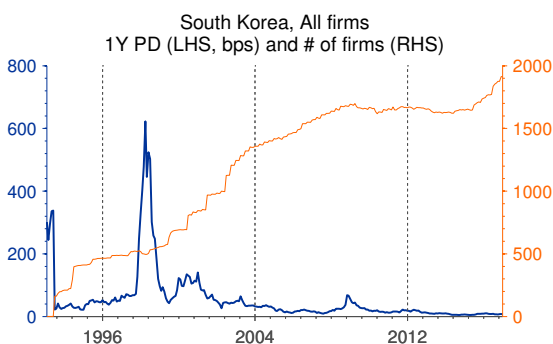
Slovakia	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	1	24.7	-	21.9	-	-2.8	-
Basic Materials	1	18.0	-	27.0	-	9.0	-
Consumer Cyclical	2	7.5	10.2	7.1	9.6	-0.5	0.6
Consumer Non-cyclical	1	20.4	-	23.6	-	3.1	-
Energy	1	10.4	-	11.3	-	0.9	-
Technology	1	5.6	-	8.4	-	2.8	-



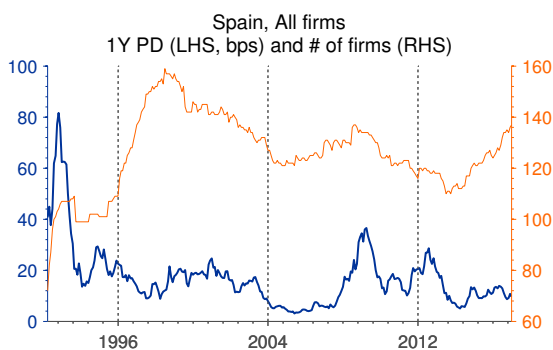
Slovenia	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	3	5.9	27.0	4.8	17.7	-2.4	9.3
Basic Materials	2	4.1	3.9	3.8	4.9	-0.3	1.0
Communications	1	13.7	-	9.5	-	-4.2	-
Consumer Cyclical	3	7.3	17.4	15.8	9.0	1.9	10.0
Consumer Non-cyclical	5	7.2	5.6	2.7	3.8	-0.4	3.2
Energy	1	1.1	-	0.7	-	-0.5	-
Industrial	2	15.5	10.1	13.4	9.0	-2.1	1.1
Technology	1	8.3	-	13.2	-	4.9	-



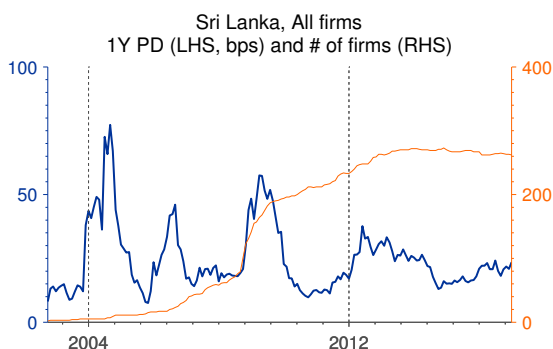
South Africa	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	69	17.6	123.7	16.2	91.5	-2.1	52.8
Basic Materials	37	27.6	120.9	22.6	111.4	-1.6	40.3
Communications	13	8.0	457.7	4.5	379.0	-1.2	78.8
Consumer Cyclical	33	9.6	97.1	8.2	417.1	-0.6	345.4
Consumer Non-cyclical	34	5.2	40.0	4.7	51.1	-0.2	16.3
Diversified	7	38.9	25.4	14.7	44.9	-0.9	26.8
Energy	8	26.5	156.7	18.7	571.9	-1.9	469.4
Industrial	41	35.5	163.4	23.9	104.7	-2.4	67.3
Technology	9	4.0	26.3	4.7	21.6	-0.4	5.0



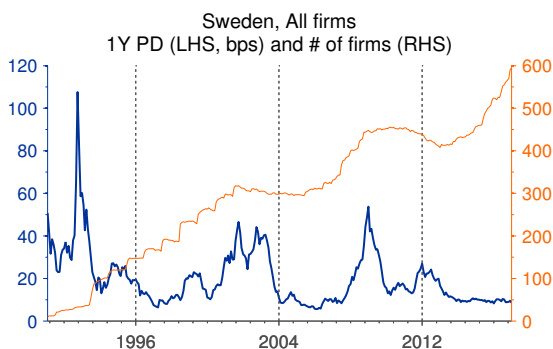
South Korea	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	90	20.0	81.1	26.2	144.4	0.0	120.7
Basic Materials	177	7.1	26.7	6.3	20.1	0.0	13.5
Communications	185	5.1	46.8	4.5	40.7	0.0	20.2
Consumer Cyclical	293	9.3	31.3	9.5	38.4	0.0	25.4
Consumer Non-cyclical	303	3.8	20.4	4.0	26.1	0.1	17.7
Diversified	45	0.0	11.1	0.0	9.2	0.0	2.0
Energy	12	9.6	60.8	11.0	58.0	0.2	12.7
Industrial	508	8.1	42.6	9.1	60.1	0.1	43.9
Technology	237	6.1	38.6	6.5	36.3	0.0	17.3
Utilities	15	15.7	10.1	12.2	10.1	-0.6	4.2



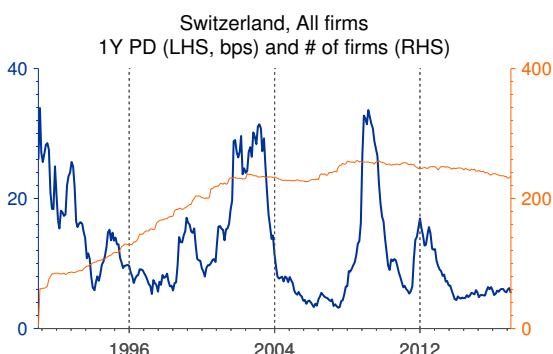
Spain	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	26	27.0	183.5	21.6	98.2	-1.7	110.3
Basic Materials	9	6.3	10.3	5.8	8.4	-0.3	5.6
Communications	14	9.1	10.7	7.3	7.8	-1.3	8.1
Consumer Cyclical	10	6.9	22.2	10.8	27.1	1.7	10.2
Consumer Non-cyclical	31	7.2	17.8	6.0	17.7	-0.0	6.1
Energy	4	8.1	5.6	8.3	4.3	-0.3	3.1
Industrial	30	10.4	18.7	14.2	15.2	-0.4	11.1
Technology	3	0.8	3.5	0.7	6.1	-0.1	2.6
Utilities	7	2.7	46.3	3.9	37.4	0.1	9.0



Sri Lanka	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	84	48.6	76.0	57.0	88.7	9.3	25.5
Basic Materials	14	20.4	48.9	23.4	60.0	2.7	12.7
Communications	4	6.2	7.1	6.0	7.4	0.7	1.6
Consumer Cyclical	60	11.6	35.9	12.4	44.8	1.0	15.8
Consumer Non-cyclical	54	18.4	79.9	21.1	85.4	0.3	15.1
Diversified	13	14.0	42.3	21.7	51.0	1.6	13.9
Energy	3	2.3	3.4	2.3	3.7	0.0	0.4
Industrial	23	9.5	295.9	9.4	182.7	0.5	121.6
Technology	2	11.9	5.5	9.4	5.7	-2.4	0.2
Utilities	5	7.8	33.4	8.0	12.0	-0.0	28.2



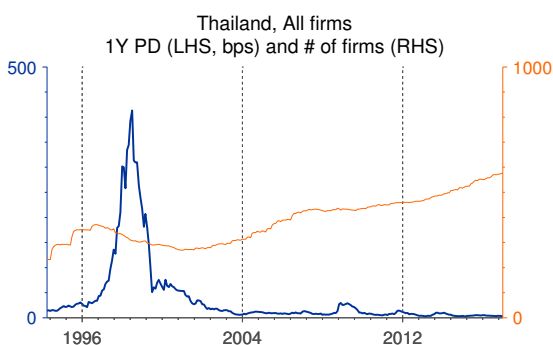
Sweden	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	74	6.8	36.6	7.9	111.4	0.5	83.6
Basic Materials	27	14.3	20.3	15.8	29.2	0.3	21.4
Communications	53	10.7	36.9	14.5	44.2	0.8	16.9
Consumer Cyclical	68	6.8	31.9	7.5	32.1	-0.1	24.8
Consumer Non-cyclical	163	8.0	20.3	8.7	19.6	0.4	13.2
Diversified	5	44.0	178.5	30.9	138.6	-8.6	40.8
Energy	13	9.4	30.9	7.3	62.2	-1.6	35.9
Industrial	111	9.5	30.9	10.9	25.7	0.1	25.9
Technology	44	8.0	22.1	6.7	25.2	0.1	11.8
Utilities	2	6.4	4.5	7.6	3.6	1.3	1.0



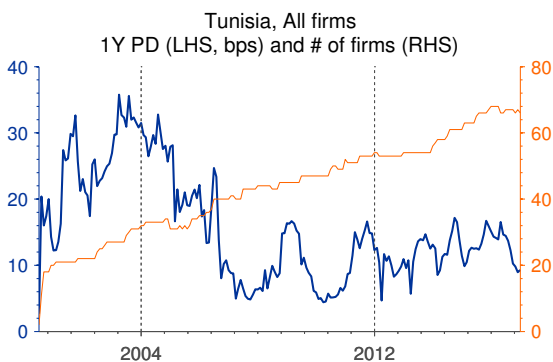
Switzerland	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	62	10.1	64.9	7.2	57.0	-0.5	21.5
Basic Materials	15	2.9	178.1	2.8	156.7	-0.0	21.6
Communications	10	5.3	5.5	5.4	5.9	0.1	2.9
Consumer Cyclical	19	6.3	28.0	5.8	27.8	-0.4	4.5
Consumer Non-cyclical	39	2.7	32.4	2.6	45.5	-0.0	29.9
Diversified	5	63.3	124.5	75.5	2029.3	11.8	1908.0
Energy	5	105.2	83.3	31.4	141.8	8.4	81.8
Industrial	60	3.8	21.9	4.9	19.6	-0.0	11.6
Technology	9	5.9	21.1	7.5	16.3	0.5	6.8
Utilities	4	8.3	13.7	8.9	15.9	1.2	2.4



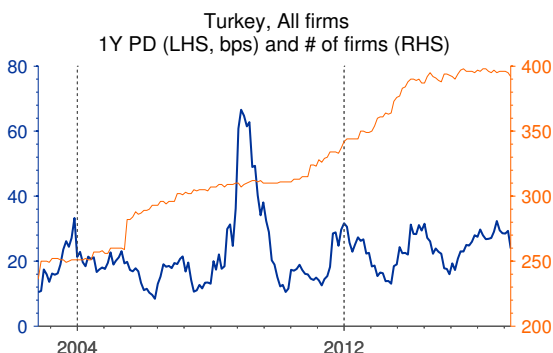
Taiwan	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	75	3.8	12.6	2.8	12.8	-0.4	2.4
Basic Materials	76	0.5	4.1	0.3	3.2	-0.1	1.9
Communications	42	1.2	6.7	1.0	6.6	-0.1	2.8
Consumer Cyclical	144	0.8	6.7	0.7	6.8	-0.0	1.7
Consumer Non-cyclical	60	0.3	2.9	0.1	2.3	-0.0	0.9
Diversified	1	0.0	-	0.0	-	-0.0	-
Energy	7	7.1	4.0	4.2	3.2	-1.6	2.0
Industrial	309	1.3	10.3	1.3	14.4	-0.0	6.2
Technology	141	0.9	6.7	0.9	9.8	-0.0	6.3
Utilities	6	0.1	0.1	0.0	0.1	-0.0	0.0



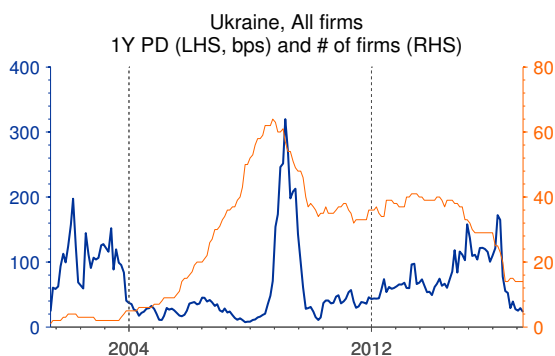
Thailand	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	100	7.4	19.8	6.7	21.6	-0.2	6.7
Basic Materials	54	4.1	23.2	2.6	17.2	-1.0	8.4
Communications	40	5.4	20.3	3.3	22.5	0.0	6.1
Consumer Cyclical	124	3.2	14.3	2.6	13.7	-0.0	7.3
Consumer Non-cyclical	89	1.1	8.5	1.2	7.8	0.0	3.5
Diversified	5	0.8	0.3	0.5	0.8	-0.0	0.5
Energy	17	6.0	27.8	4.0	20.9	-0.5	8.2
Industrial	114	4.6	14.5	3.8	15.7	-0.1	6.3
Technology	11	5.4	93.4	6.0	37.2	-1.0	58.0
Utilities	15	1.2	6.3	1.0	5.5	-0.0	4.0



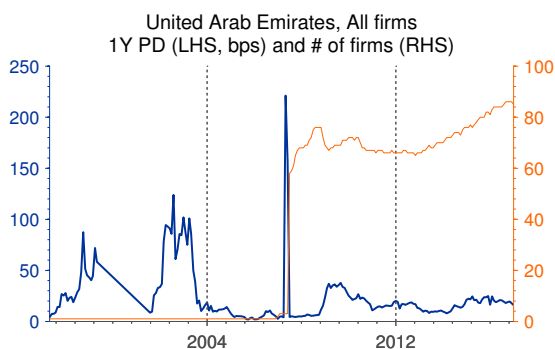
Tunisia	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	24	28.6	55.7	28.4	45.5	-1.6	15.7
Basic Materials	4	5.3	5.3	2.4	4.3	-0.6	3.6
Communications	5	28.1	33.4	10.5	29.4	-7.9	11.7
Consumer Cyclical	9	0.7	80.2	0.9	69.4	-0.0	10.9
Consumer Non-cyclical	8	7.2	44.8	9.1	36.8	0.4	11.9
Diversified	1	2.0	-	1.0	-	-1.0	-
Energy	1	0.4	-	0.2	-	-0.1	-
Industrial	11	22.3	74.9	7.1	59.2	-3.0	17.0
Technology	2	83.8	2.8	103.5	7.3	19.7	10.1



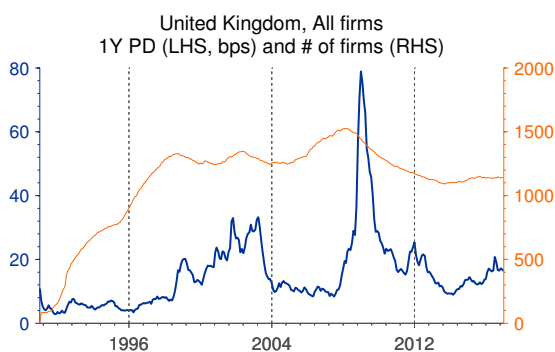
Turkey	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	99	32.2	49.0	31.6	43.3	-0.8	22.4
Basic Materials	36	19.0	27.5	15.9	22.5	-2.7	7.7
Communications	13	20.8	16.0	24.3	41.4	-1.1	37.2
Consumer Cyclical	92	37.9	56.8	34.6	95.7	-1.9	55.5
Consumer Non-cyclical	54	22.6	85.9	23.3	61.7	-1.0	34.3
Diversified	11	46.0	39.6	47.5	45.1	2.3	13.5
Energy	5	22.9	42.1	14.2	33.3	-8.6	23.0
Industrial	70	19.4	37.6	16.6	33.4	-2.7	14.9
Technology	3	21.8	22.6	20.9	28.0	9.1	8.4
Utilities	8	25.6	24.4	16.5	27.8	-2.0	5.9



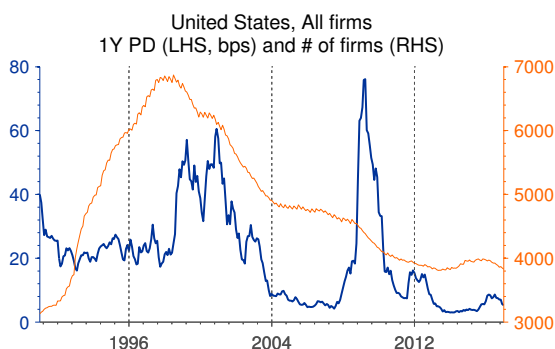
Ukraine	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	1	193.7	-	191.3	-	-2.4	-
Consumer Non-cyclical	8	54.2	121.0	40.5	213.5	-2.4	158.2
Diversified	1	15.5	-	20.4	-	4.9	-
Energy	1	41.4	-	82.1	-	40.7	-
Industrial	2	14.9	19.6	11.5	15.0	-3.4	4.6
Utilities	1	14.5	-	16.9	-	2.4	-



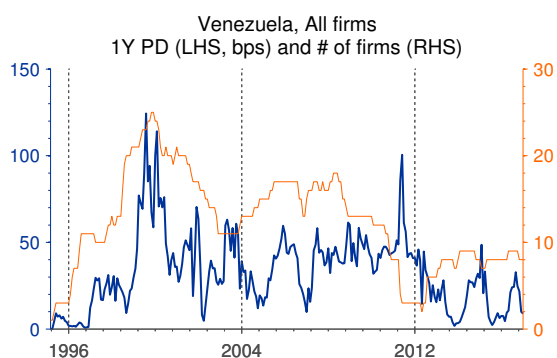
United Arab Emirates	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	43	20.5	21.0	16.2	21.1	-3.2	8.7
Communications	3	0.2	10.6	0.4	7.2	0.0	3.4
Consumer Cyclical	5	3.7	11.9	5.8	13.7	-0.1	2.8
Consumer Non-cyclical	11	8.1	33.0	5.1	48.0	-0.4	18.9
Energy	4	73.6	175.3	57.3	111.8	-16.4	67.0
Industrial	18	16.1	51.3	15.7	35.4	-1.9	25.9
Utilities	1	197.1	-	197.4	-	0.3	-



United Kingdom	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	207	14.9	107.8	14.6	106.6	0.0	90.2
Basic Materials	90	23.8	81.6	26.9	194.1	0.9	125.1
Communications	94	19.2	116.7	19.8	90.4	0.9	65.6
Consumer Cyclical	145	16.5	135.7	16.8	81.8	0.1	67.4
Consumer Non-cyclical	225	12.9	36.9	12.8	79.4	0.3	65.1
Diversified	4	19.0	49.4	24.9	60.8	8.2	15.7
Energy	84	39.0	82.1	31.8	65.7	-2.4	56.9
Industrial	164	16.5	58.7	16.7	66.9	-0.1	29.9
Technology	93	10.9	42.4	11.5	43.3	-0.1	35.8
Utilities	11	2.7	39.6	4.0	40.2	1.0	4.7



United States	#	2016Q3		2016Q4		Q4-Q3	
		Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	898	7.2	80.5	4.0	84.5	-1.6	42.2
Basic Materials	127	4.9	91.3	5.9	67.8	-0.4	56.7
Communications	278	7.8	142.3	6.6	174.1	-0.1	108.4
Consumer Cyclical	447	6.3	136.8	4.8	154.6	-0.2	82.5
Consumer Non-cyclical	890	8.2	205.0	8.7	307.4	0.0	217.4
Diversified	7	19.0	15.7	12.6	33.4	-2.6	32.4
Energy	271	27.6	262.1	19.7	568.7	-3.1	506.5
Industrial	465	4.5	160.6	3.2	92.1	-0.3	98.9
Technology	317	3.2	83.8	3.3	114.2	-0.0	68.0
Utilities	83	0.7	47.5	0.7	37.4	-0.0	13.5



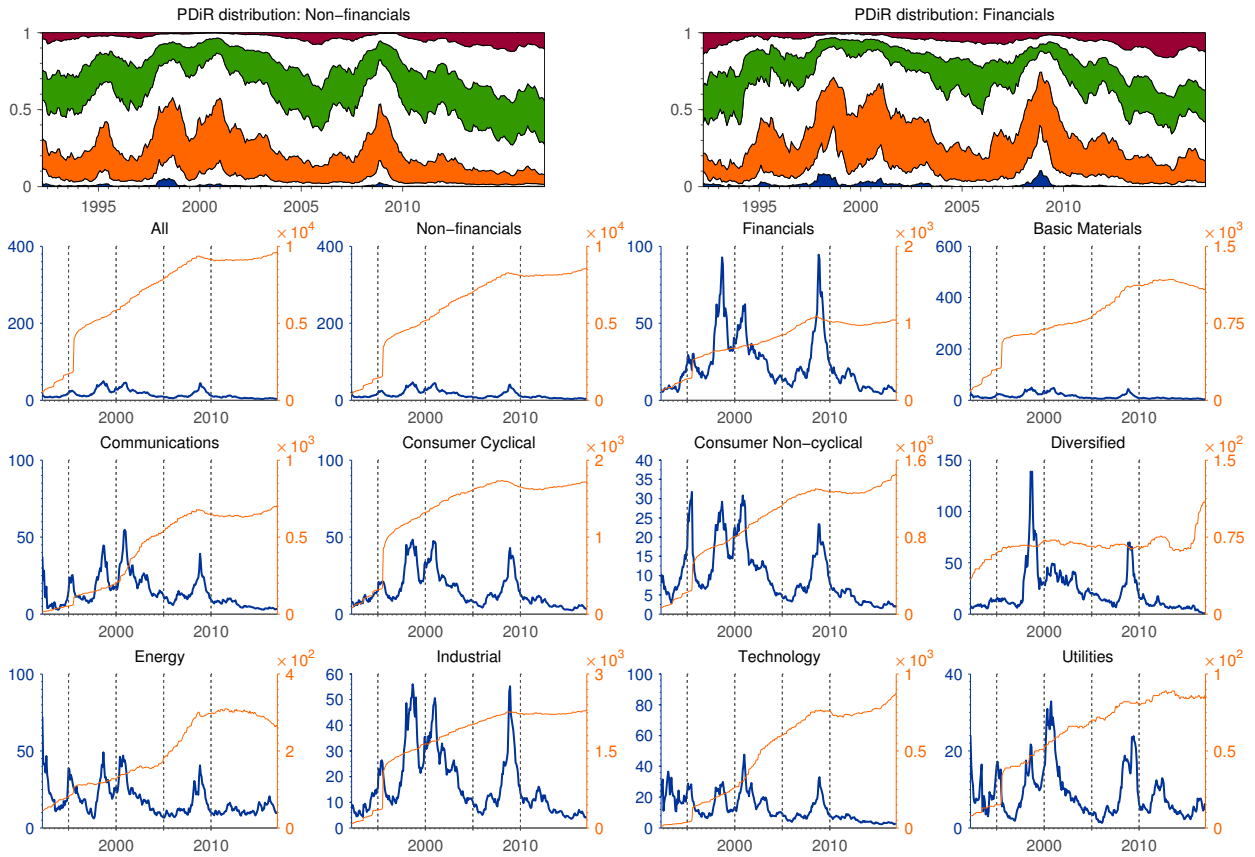
Venezuela	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	5	29.5	17.3	8.0	8.2	-21.5	10.1
Basic Materials	1	168.9	-	79.0	-	-89.9	-
Industrial	2	13.3	16.2	5.2	6.3	-8.1	9.9



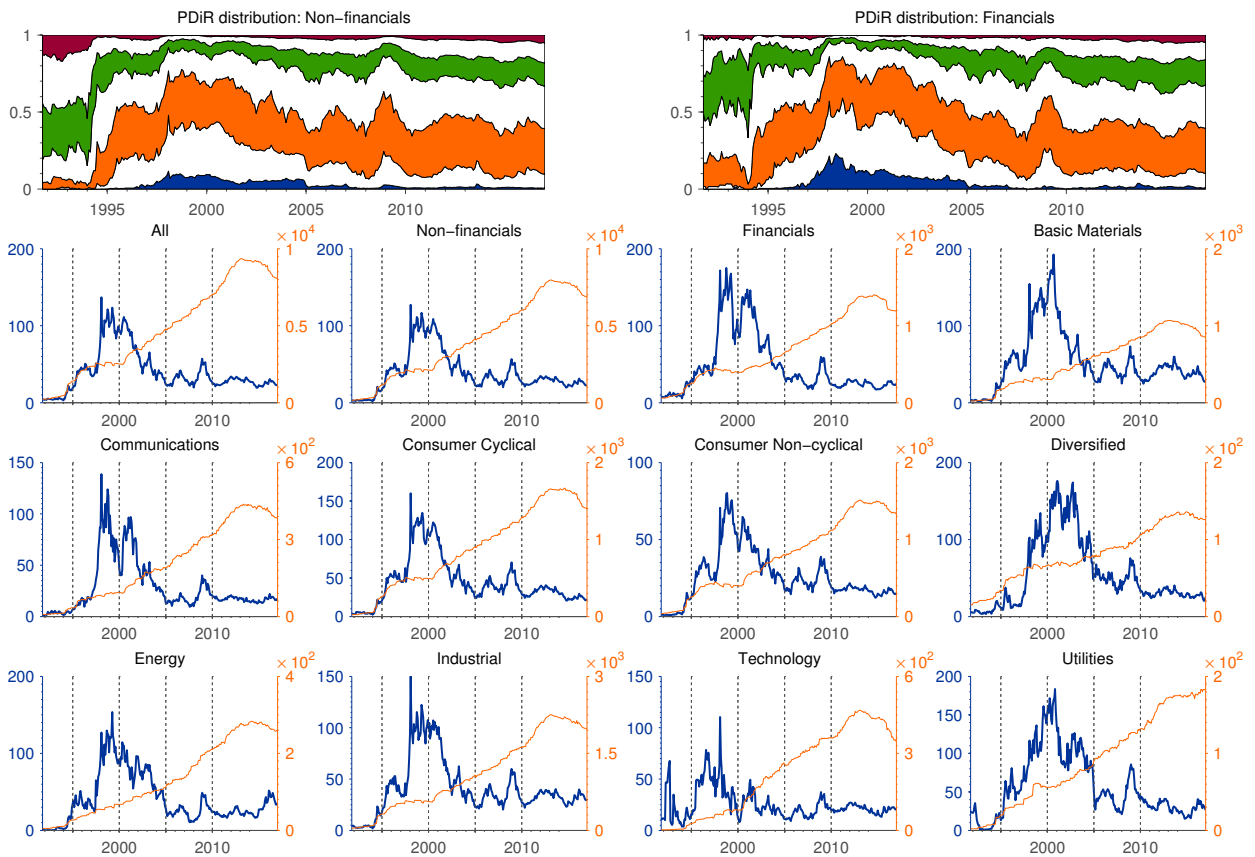
Vietnam	2016Q3			2016Q4		Q4-Q3	
	#	Median	St.Dev.	Median	St.Dev.	Median	St.Dev.
Financials	77	23.0	94.3	22.0	97.2	-0.1	28.3
Basic Materials	60	14.8	82.6	15.4	90.6	-0.5	63.2
Communications	17	20.5	38.6	13.7	48.9	-2.1	19.5
Consumer Cyclical	53	29.1	133.7	27.3	306.6	-0.0	187.4
Consumer Non-cyclical	91	18.1	120.1	13.6	137.9	-0.1	85.4
Diversified	16	6.8	35.8	9.7	62.8	-0.3	45.7
Energy	21	72.3	89.7	82.1	69.0	-5.2	35.7
Industrial	227	33.0	80.8	34.3	90.2	-0.0	48.5
Technology	6	16.1	54.2	10.0	27.7	-8.9	44.4
Utilities	18	7.0	17.6	5.6	13.5	-1.5	5.6

B PD by regions

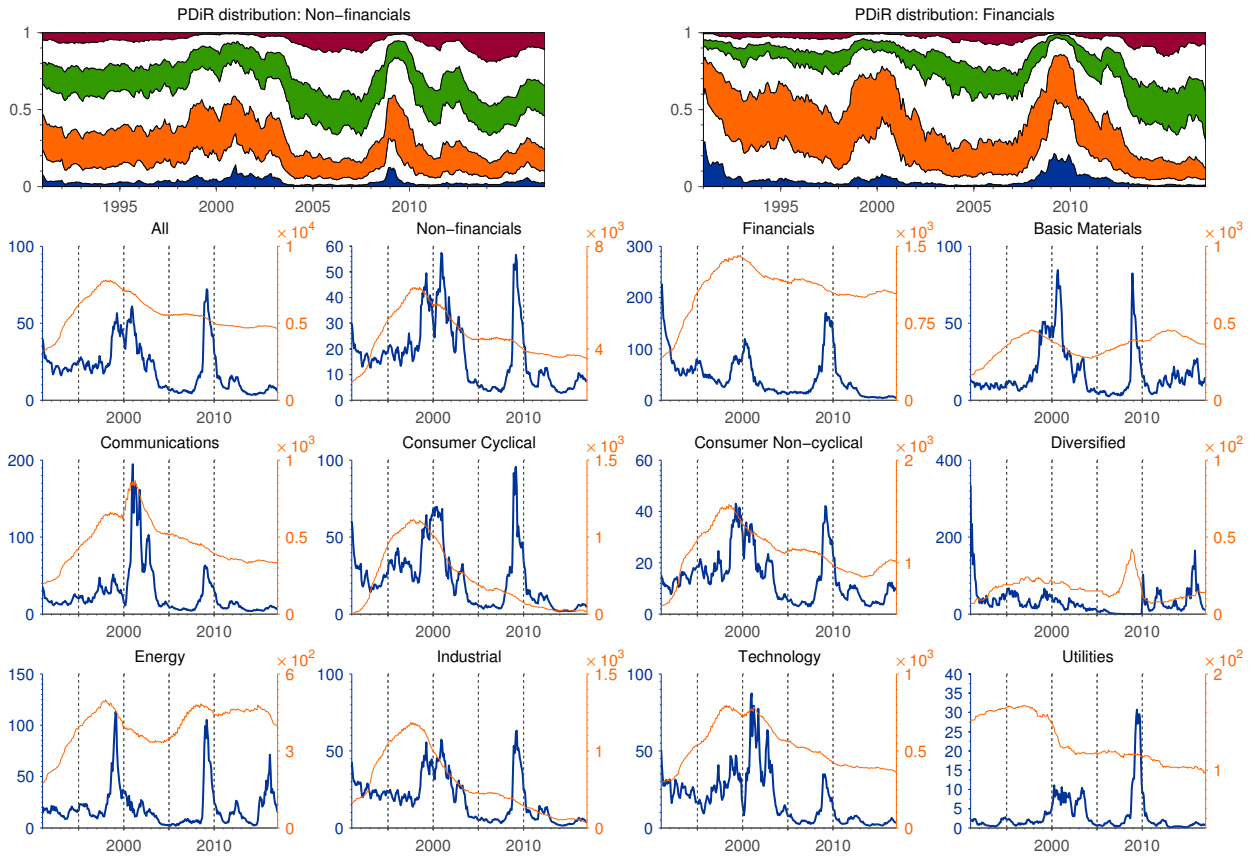
Asia Pacific - developed economies



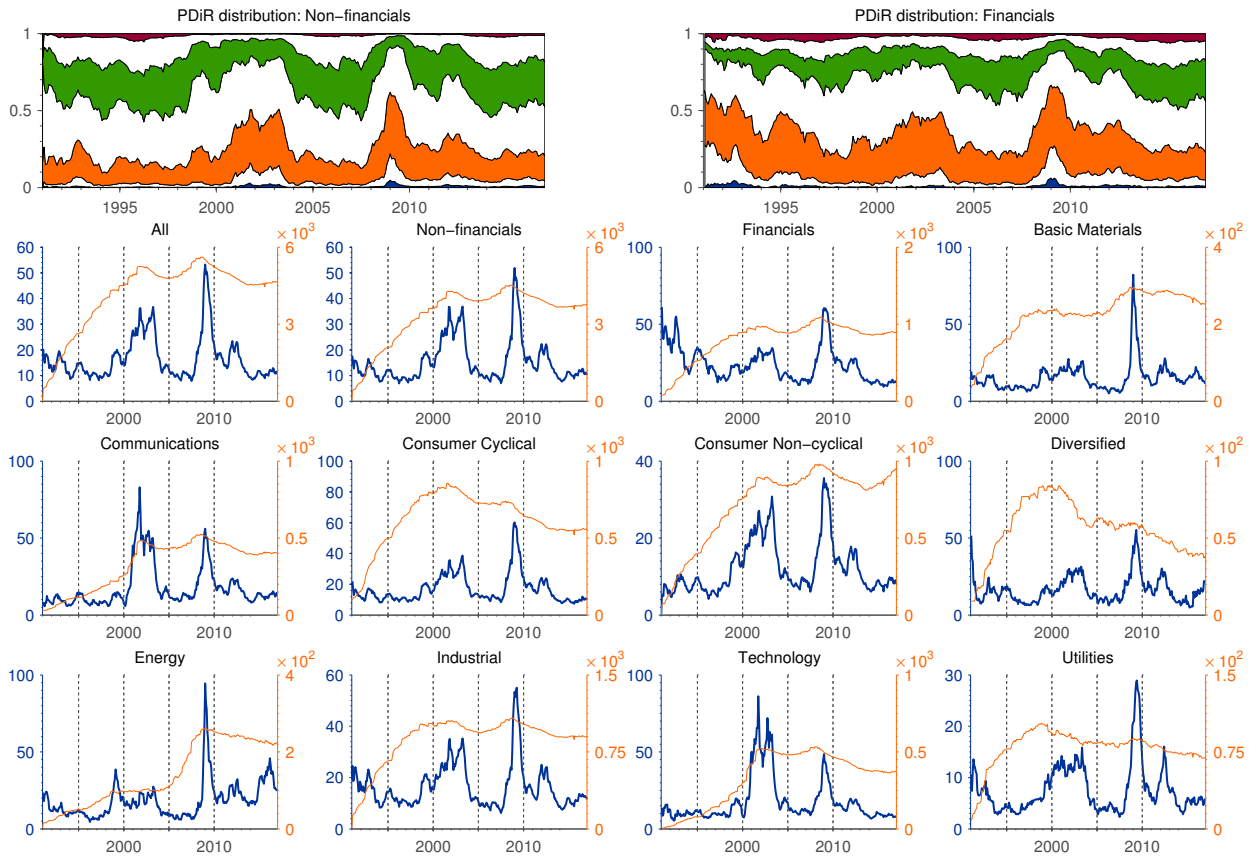
Asia Pacific - emerging economies



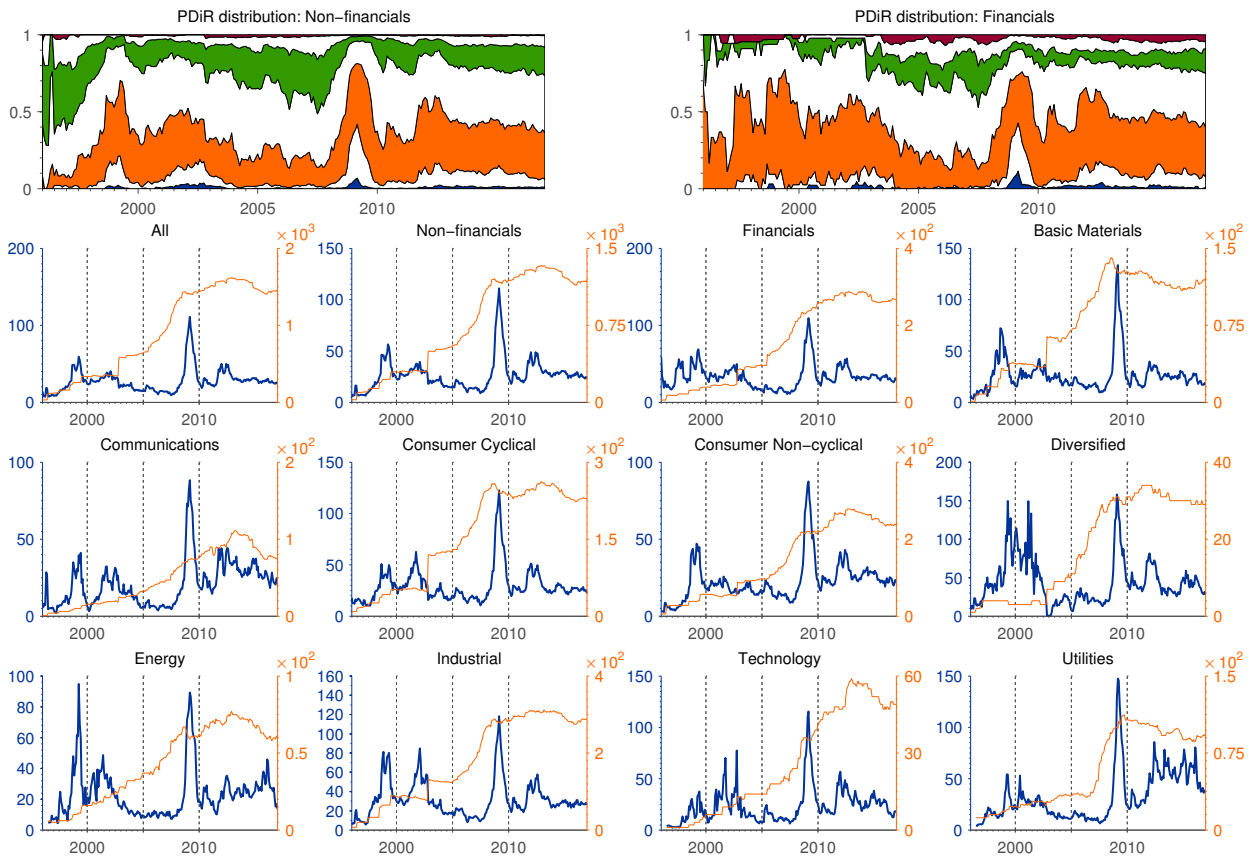
North America



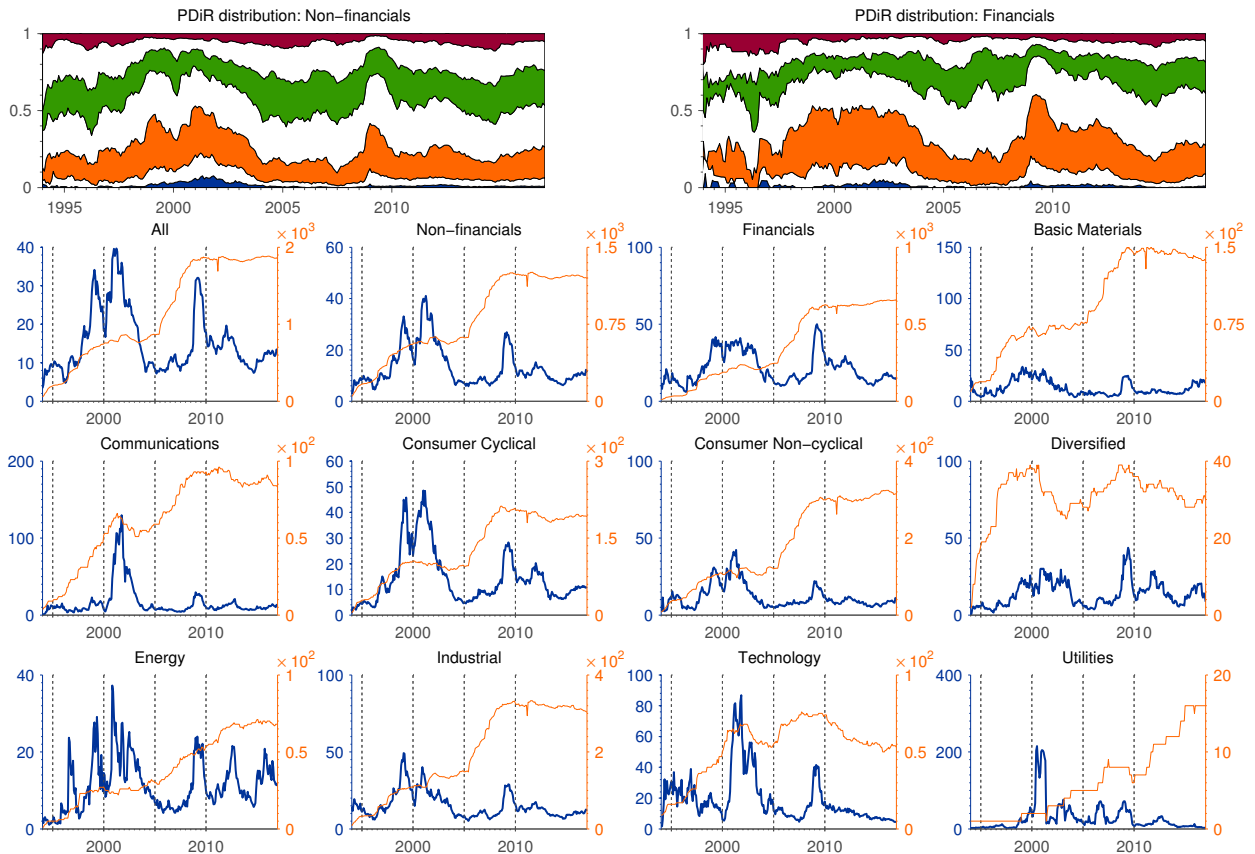
Western Europe



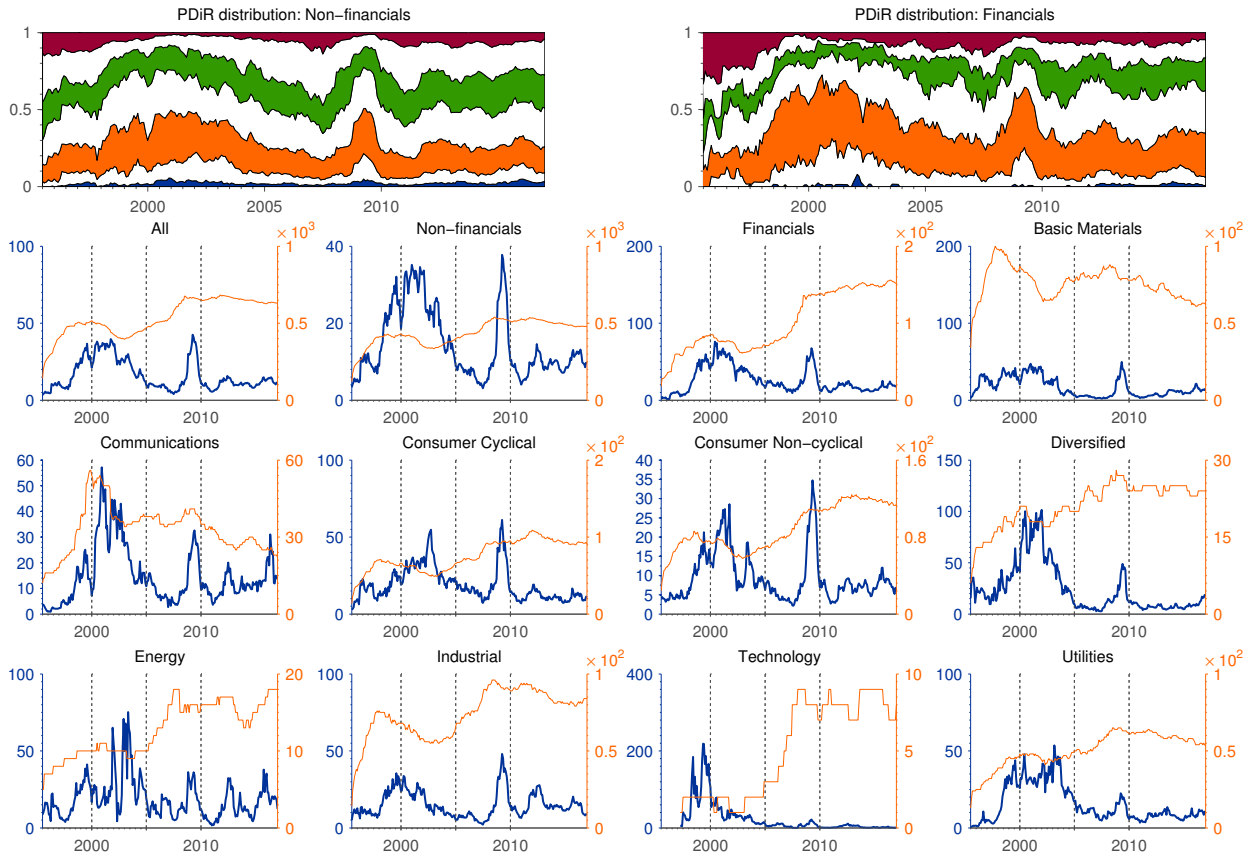
Eastern Europe



Africa ME

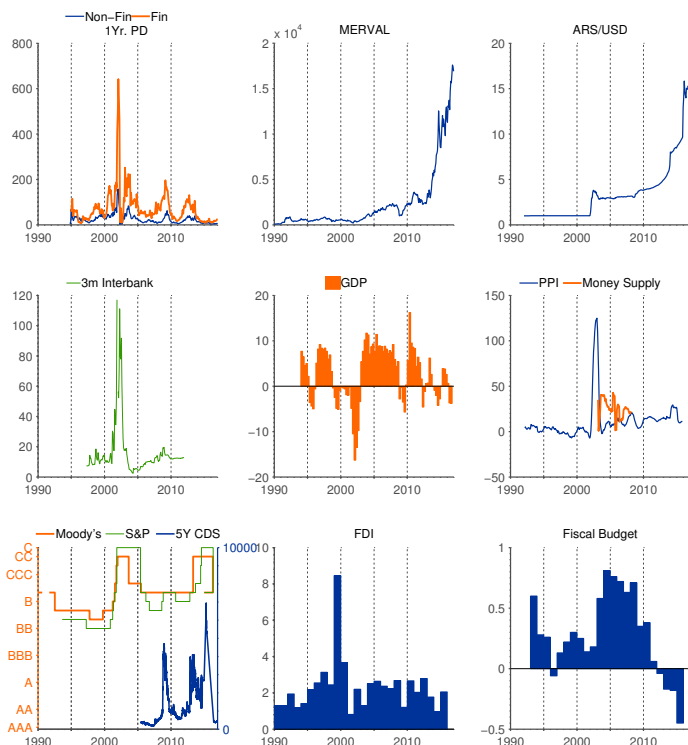


Latin America

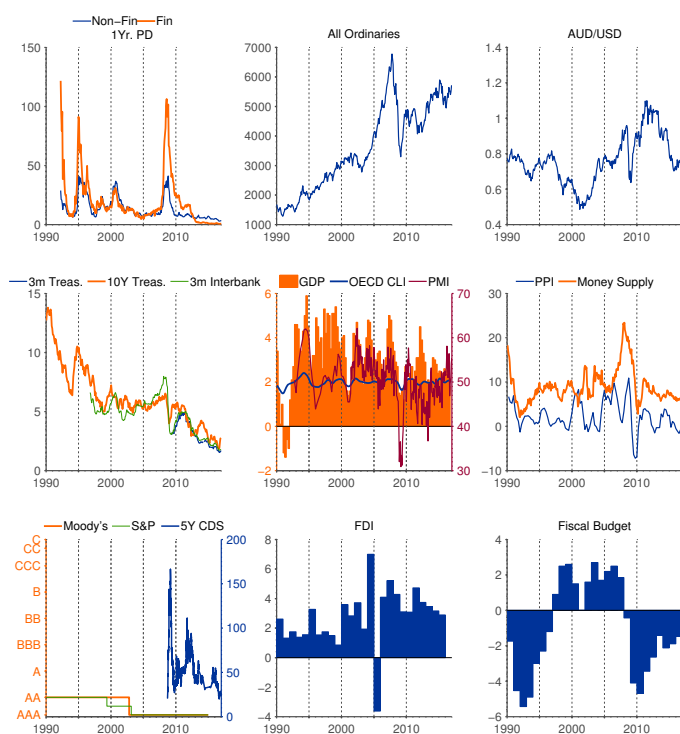


C Macroeconomic Indicators

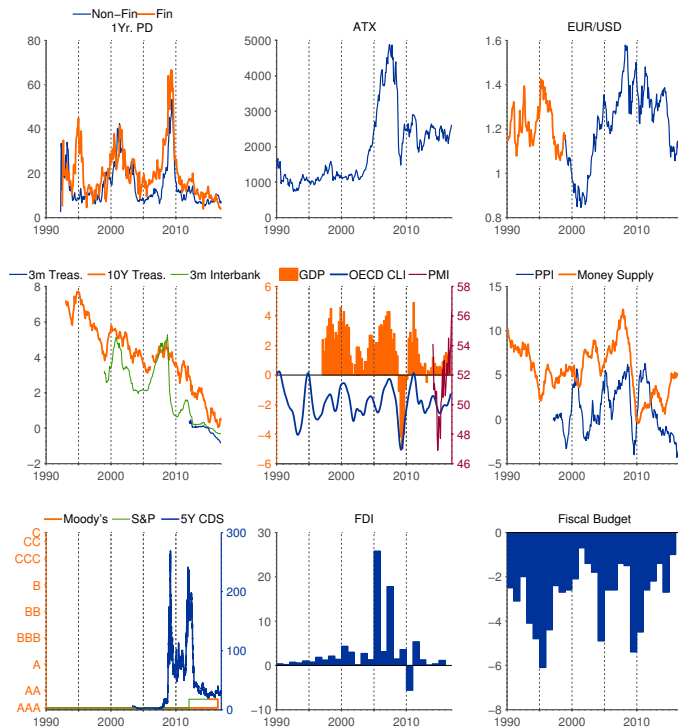
Descriptions of the data contained in this section are provided in Appendix D.



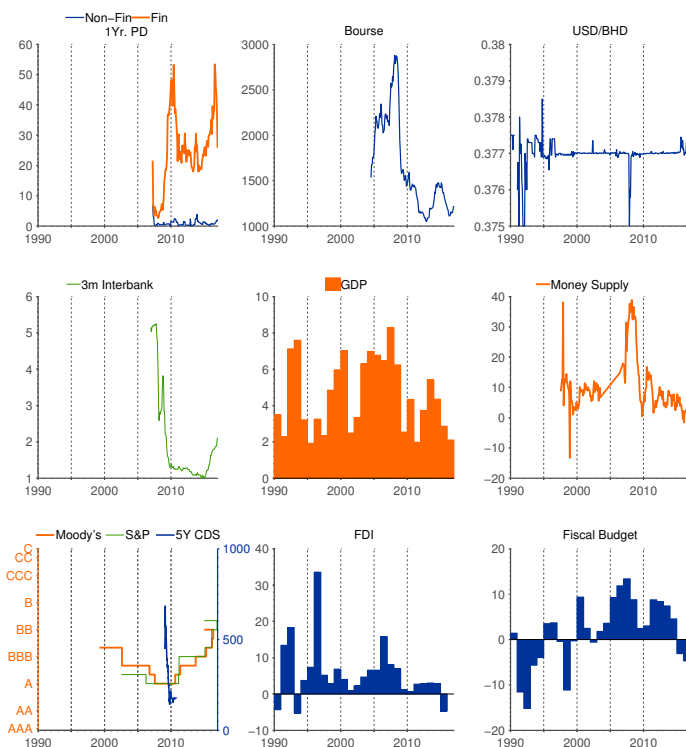
Argentina	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	3.84	4.17	5.44	5.05	4.91
1Yr. PD, Fin.	11.83	13.18	19.32	17.31	25.08
MERVAL	11675	12992	14683	16676	16918
ARS/USD	12.93	14.70	15.05	15.31	15.88
GDP (YoY%)	2.6	0.6	-3.7	-3.8	-
PPI (YoY%)	11.5*	-	-	-	-
Sov. Rating, Moody's	B3	B3	B3	B3	B3
Sov. Rating, S&P	B-	B-	B-	B-	B-
5Y CDS (bps)	-	-	419.70	381.72	419.36
FDI (%GDP)	2.05	-	-	-	-
Fiscal Budget (%GDP)	-0.45	-	-	-	-



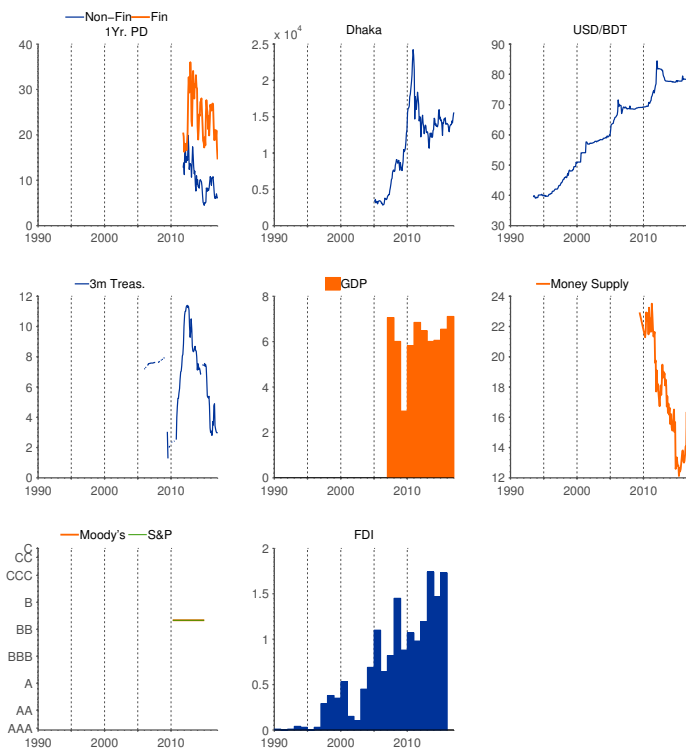
Australia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	4.95	5.03	4.07	2.94	3.22
1Yr. PD, Fin.	0.80	1.36	0.82	0.67	0.76
All Ordinaries	5345	5152	5310	5525	5719
AUD/USD	0.73	0.77	0.75	0.77	0.72
3m Treas. Yield (%)	2.02	2.04	1.69	1.53	1.70
10Y Treas. Yield (%)	2.88	2.49	1.98	1.91	2.77
3m Interbank (%)	2.33	2.27	1.94	1.72	1.80
GDP (YoY%)	2.6	2.5	3.1	1.8	-
OECD CLI	99.91	100.15	100.32	100.15	99.98*
PMI	51.9	58.1	51.8	49.8	55.4
PPI (YoY%)	-0.5	-1.1	-1.6	-0.7	-
Money Supply (YoY%)	5.9	6.2	6.0	5.8	6.1*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	38.70	35.01	35.00	25.66	24.83
FDI (%GDP)	2.89	-	-	-	-
Fiscal Budget (%GDP)	-1.89	-	-	-	-1.47



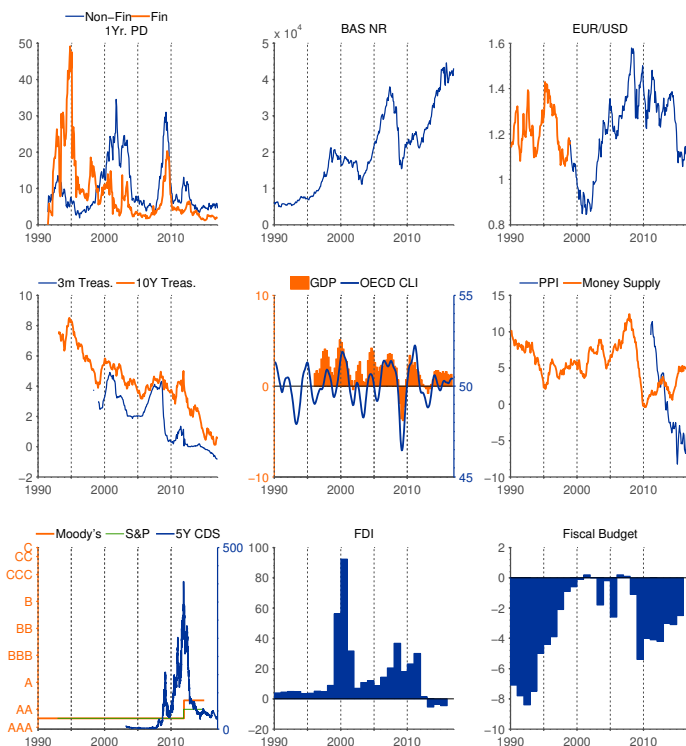
Austria	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.63	10.75	10.22	7.85	6.40
1Yr. PD, Fin.	7.38	8.47	6.78	4.45	3.71
ATX	2397	2270	2096	2405	2618
EUR/USD	1.09	1.14	1.11	1.12	1.05
3m Treas. Yield (%)	-0.41	-0.53	-0.61	-0.70	-0.82
10Y Treas. Yield (%)	0.90	0.35	0.20	0.10	0.43
3m Interbank (%)	-0.13	-0.24	-0.29	-0.30	-0.32
GDP (YoY%)	1.3	1.5	1.3	1.5	-
OECD CLI	99.96	99.93	100.17	100.58	100.74*
PMI	50.6	52.8	54.5	53.5	56.3
PPI (YoY%)	-2.6	-4.0	-3.0	-2.0	-0.5*
Money Supply (YoY%)	4.7	5.1	5.0	5.1	4.7*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
5Y CDS (bps)	22.2	29.4	31.0	25.9	28.1
FDI (%GDP)	1.14	-	-	-	-
Fiscal Budget (%GDP)	-1.00	-	-	-	-



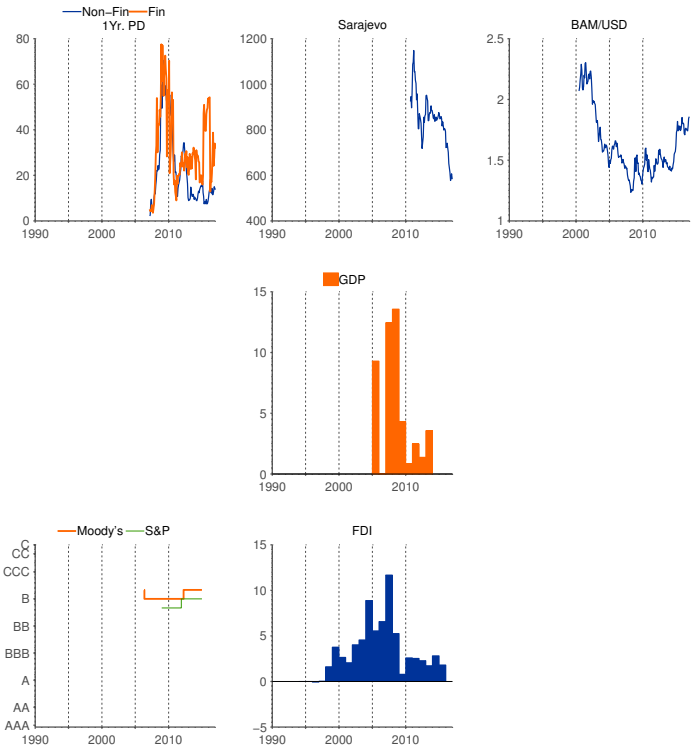
Bahrain	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	0.55	0.69	0.59	1.23	2.18
1Yr. PD, Fin.	31.63	39.59	38.52	45.81	25.85
Bourse	1216	1131	1118	1150	1220
USD/BHD	0.38	0.38	0.38	0.38	0.38
3m Interbank (%)	1.63	1.76	1.80	1.88	2.10
GDP (YoY%)	2.86	-	-	-	2.10
Money Supply (YoY%)	2.24	1.96	2.11	2.70	2.50*
Sov. Rating, Moody's	Ba2	Ba2	Ba2	Ba2	Ba2
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	-4.70	-	-	-	-
Fiscal Budget (%GDP)	-3.10	-	-	-	-4.71



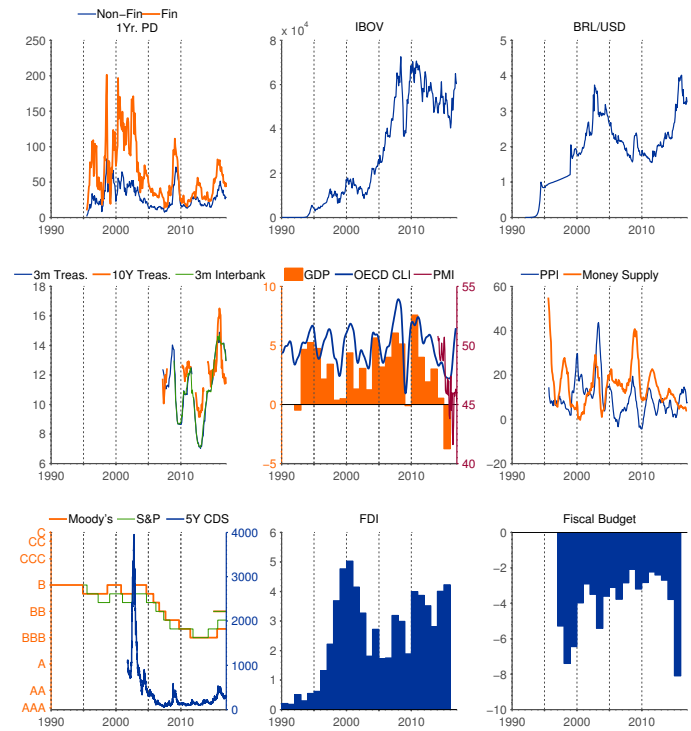
Bangladesh	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.95	10.57	7.30	6.00	6.02
1Yr. PD, Fin.	25.90	26.90	18.84	19.18	14.60
Dhaka	14090	13407	13803	14429	15478
USD/BDT	78.25	78.38	78.33	78.38	78.92
3m Treas. Yield (%)	3.00	2.83	4.75	3.20	2.98
GDP (YoY%)	6.5	-	-	-	7.1
Money Supply (YoY%)	13.1	13.6	16.4	13.4	13.8*
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	1.73	-	-	-	-



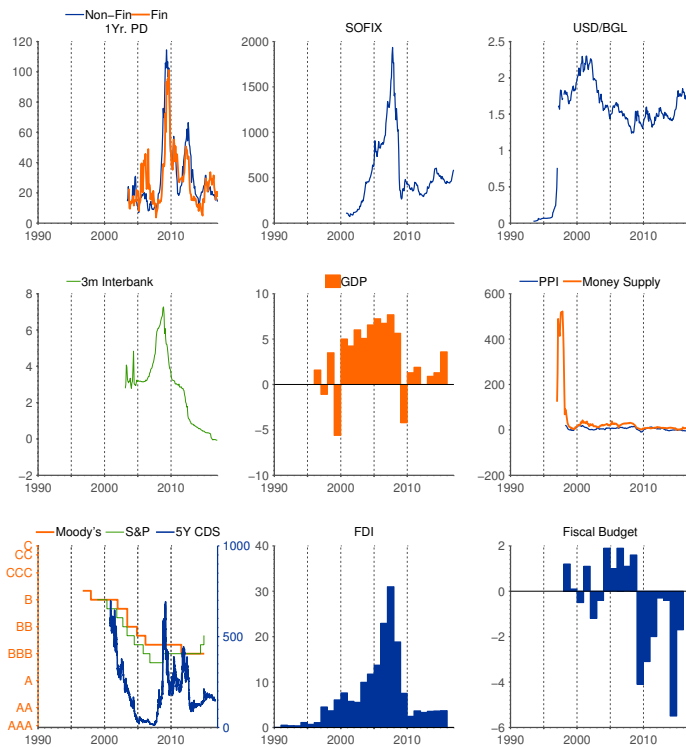
Belgium	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	4.31	4.89	5.48	5.18	4.54
1Yr. PD, Fin.	2.21	2.37	2.02	1.85	1.88
BAS NR	42529.7	39614.7	41164.2	42424.0	43085.0
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.43	-0.43	-0.65	-0.75	-0.85
10Y Treas. Yield (%)	0.97	0.51	0.23	0.14	0.53
GDP (YoY%)	1.6	1.3	1.2	1.3	-
OECD CLI	100.21	100.17	100.36	100.42	100.39*
PPI (YoY%)	-4.0	-6.5	-3.4	0.8	5.3*
Money Supply (YoY%)	4.60	5.10	5.00	5.10	5.20
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA	AA	AA	AA	AA
5Y CDS (bps)	32.50	45.57	49.22*	-	33.66
FDI (%GDP)	-4.57	-	-	-	-
Fiscal Budget (%GDP)	-2.50	-	-	-	-



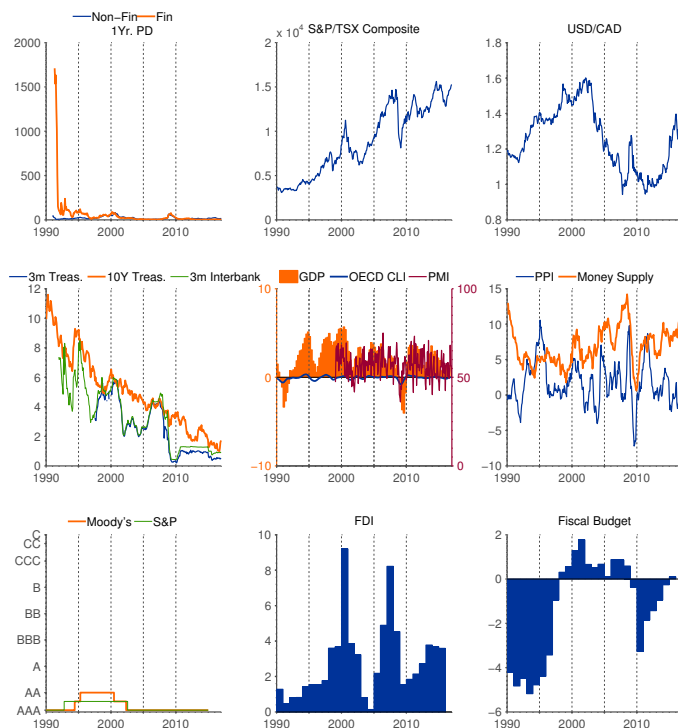
Bosnia and Herzegovina	2015		2016			
	Q4	Q1	Q2	Q3	Q4	
1Yr. PD, Non-Fin. (bps)	10.65	15.49	14.29	12.98	13.69	
1Yr. PD, Fin.	52.48	12.86	20.83	24.14	31.82	
Sarajevo	792	741	652	577	583	
BAM/USD	1.80	1.72	1.76	1.74	1.86	
Sov. Rating, Moody's	B3	B3	B3	B3	B3	
Sov. Rating, S&P	B	B	B	B	B	
FDI (%GDP)	1.81	-	-	-	-	



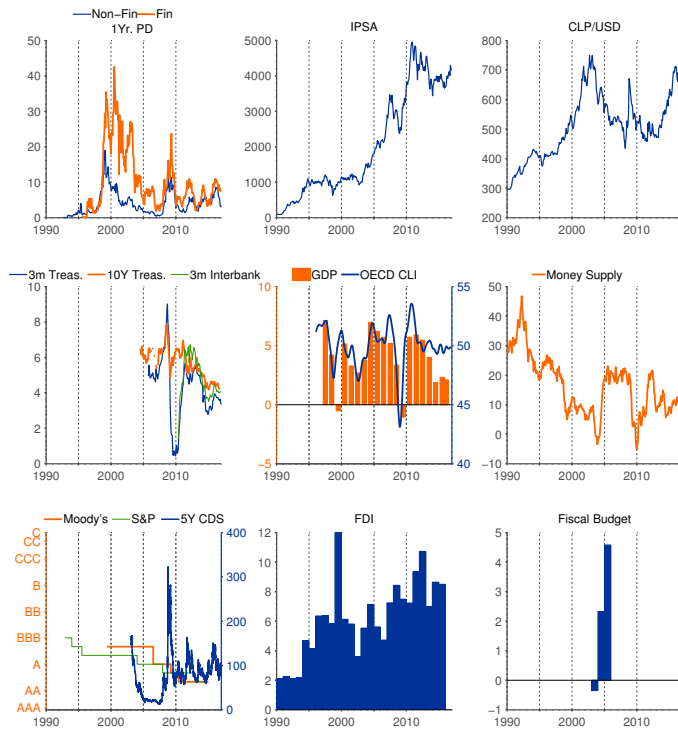
Brazil	2015		2016			
	Q4	Q1	Q2	Q3	Q4	
1Yr. PD, Non-Fin. (bps)	45.53	41.98	38.66	31.71	27.65	
1Yr. PD, Fin.	81.05	71.20	60.32	48.63	42.92	
IBOV	43350	50055	51527	58367	60227	
BRL/USD	3.96	3.59	3.21	3.26	3.25	
3m Treas. Yield (%)	14.89	13.99	14.14	13.72	12.94	
10Y Treas. Yield (%)	16.51	13.97	12.07	11.58	11.40	
3m Interbank (%)	14.73	14.12	14.13	13.80	12.96	
GDP (YoY%)	-3.8	-	-	-	-	
OECD CLI	97.25	98.03	99.64	101.08	101.46*	
PMI	45.6	46.0	43.2	46.0	45.2	
PPI (YoY%)	11.2	13.0	14.6	12.3	7.6	
Money Supply (YoY%)	6.3	5.6	5.2	5.2	3.7*	
Sov. Rating, Moody's	Ba2	Ba2	Ba2	Ba2	Ba2	
Sov. Rating, S&P	BB	BB	BB	BB	BB	
5Y CDS (bps)	494.95	365.74	316.92	272.81	280.76	
FDI (%GDP)	4.23	-	-	-	-	
Fiscal Budget (%GDP)	-8.10	-	-	-	-	



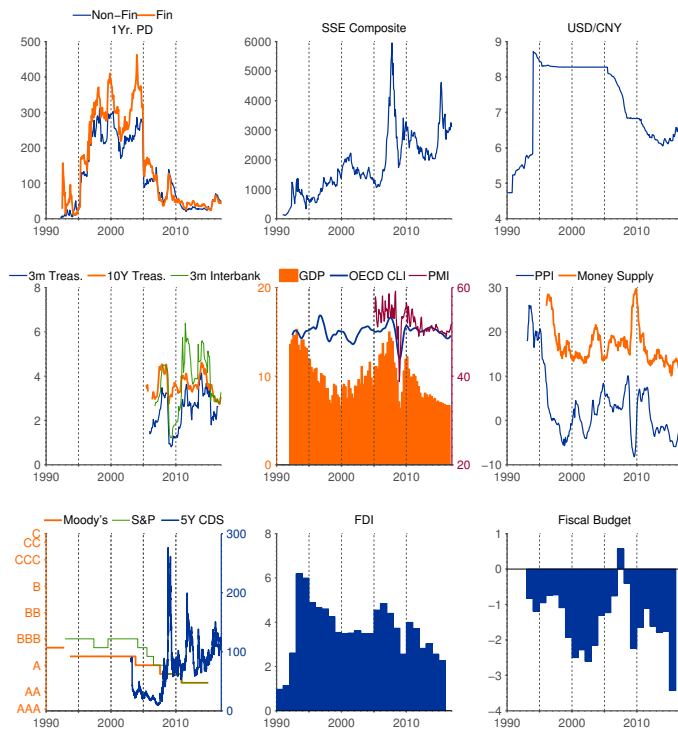
Bulgaria	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.81	19.28	17.98	15.64	14.20
1Yr. PD, Fin.	29.65	28.93	23.81	15.46	17.38
SOFIX	460.9	446.4	455.6	504.6	586.4
USD/BGL	1.80	1.72	1.76	1.74	1.86
3m Interbank (%)	0.26	-0.02	-0.04	-0.05	-0.07
GDP (YoY%)	3.6	-	-	-	-
PPI (YoY%)	-3.2	-4.1	-4.2	-2.4	-0.6*
Money Supply (YoY%)	8.8	6.0	8.9	8.7	8.1*
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BB+	BB+	BB+	BB+	BB+
5Y CDS (bps)	171.99	161.42	162.71	142.88*	-
FDI (%GDP)	3.69	-	-	-	-
Fiscal Budget (%GDP)	-1.70	-	-	-	-



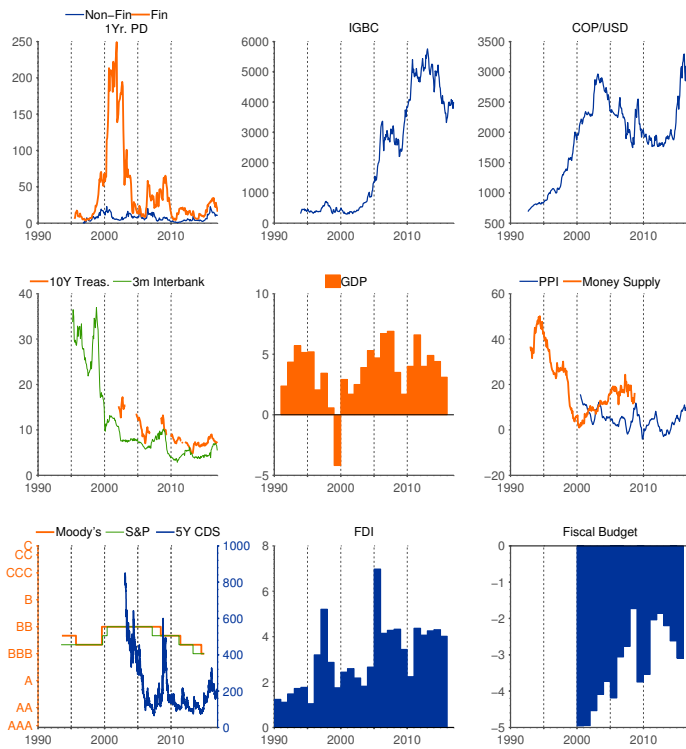
Canada	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	23.80	19.28	14.60	13.24	14.34
1Yr. PD, Fin.	5.26	4.80	4.98	3.88	3.17
S&P/TSX Composite	13010	13494	14065	14726	15288
USD/CAD	1.38	1.30	1.29	1.31	1.34
3m Treas. Yield (%)	0.51	0.45	0.49	0.53	0.46
10Y Treas. Yield (%)	1.39	1.23	1.06	1.00	1.72
3m Interbank (%)	0.87	0.90	0.88	0.90	0.94
GDP (YoY%)	0.4	1.3	1.1	1.3	-
OECD CLI	99.19	99.28	99.66	100.01	100.11*
PMI	42.5	57.9	54.7	68.1	49.4
PPI (YoY%)	1.0	-1.9	-0.7	-0.4	1.4*
Money Supply (YoY%)	9.1	8.1	10.5	8.1	9.0*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	3.59	-	-	-	-
Fiscal Budget (%GDP)	0.10	-	-	-	-



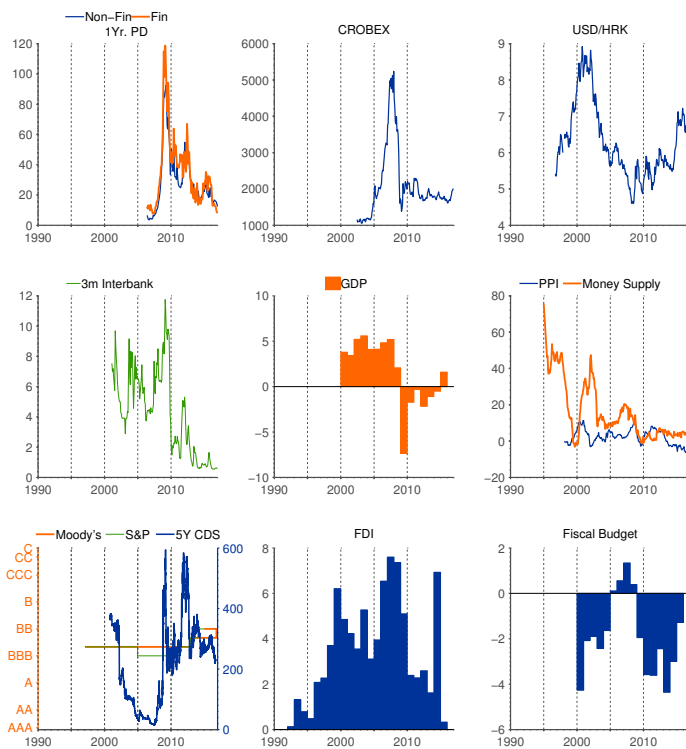
Chile	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.31	8.13	7.64	5.21	3.39
1Yr. PD, Fin.	9.60	10.57	8.98	8.41	7.40
IPSA	3680	3937	3996	4015	4151
CLP/USD	707.80	667.74	663.26	657.32	670.68
3m Treas. Yield (%)	3.95	3.81	3.73	3.61	3.35
10Y Treas. Yield (%)	4.63	4.44	4.55	4.22	4.20*
3m Interbank (%)	4.49	4.23	4.12	4.04	4.09
GDP (YoY%)	2.3	2.1	-	-	-
OECD CLI	99.73	99.91	99.74	99.85	99.90*
Money Supply (YoY%)	9.8	12.5	9.2	8.0	6.9*
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	128.65	95.00	94.50	86.43	83.25
FDI (%GDP)	8.50	-	-	-	-



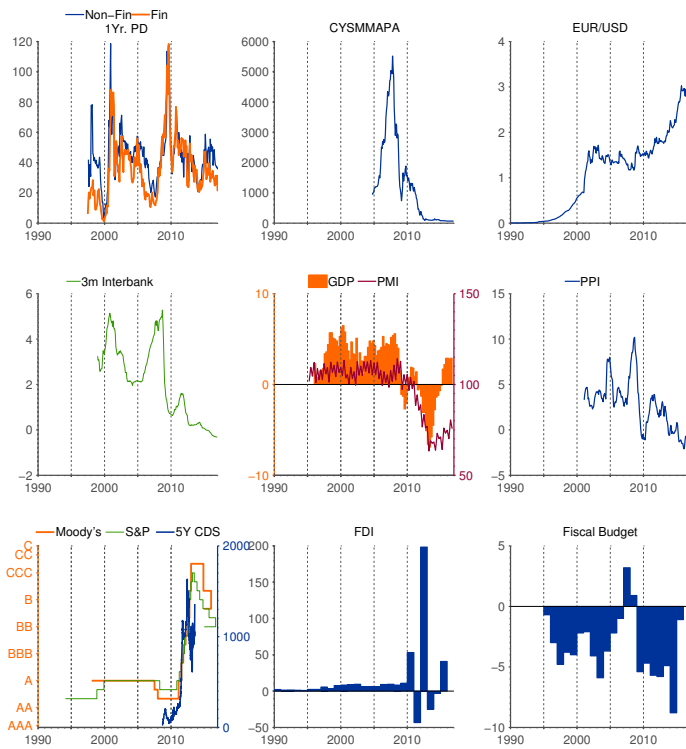
China	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	48.64	63.81	60.63	53.15	47.79
1Yr. PD, Fin.	48.37	61.99	52.90	46.19	41.84
SSE Composite	3539.2	3003.9	2929.6	3004.7	3103.6
USD/CNY	6.5	6.5	6.6	6.7	6.9
3m Treas. Yield (%)	2.18	2.05	2.63	2.63*	-
10Y Treas. Yield (%)	2.86	2.89	2.86	2.74	3.06
3m Interbank (%)	3.09	2.82	2.97	2.80	3.27
GDP (YoY%)	6.8	6.7	6.7	6.7	-
OECD CLI	98.80	98.52	98.57	98.96	99.18*
PMI	49.7	50.2	50.0	50.4	51.4
PPI (YoY%)	-5.90	-4.30	-2.60	0.10	5.50
Money Supply (YoY%)	13.30	13.40	11.80	11.50	11.40*
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	109.28	120.83	122.23	106.50	113.67
FDI (%GDP)	2.27	-	-	-	-
Fiscal Budget (%GDP)	-3.42	-	-	-	-



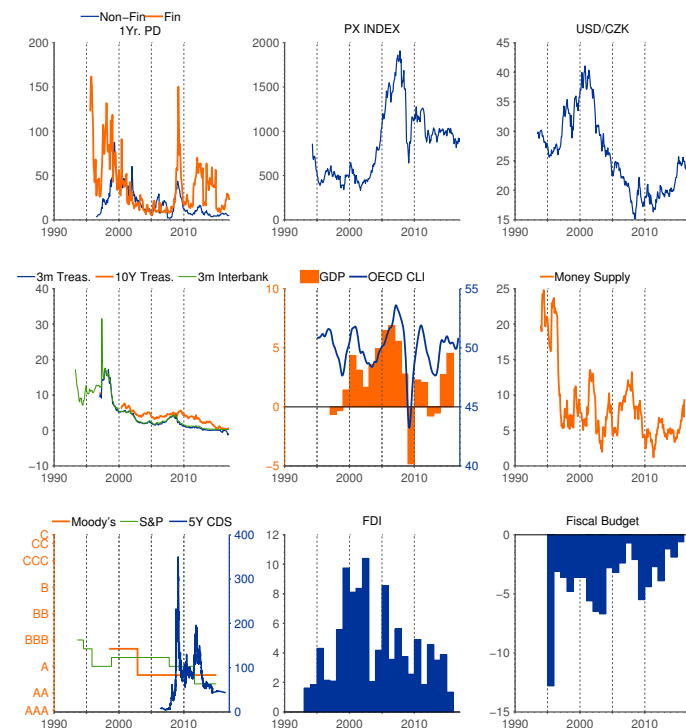
Colombia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	19.85	14.04	13.86	11.43	10.32
1Yr. PD, Fin.	29.27	34.23	27.42	28.05	15.63
IGBC	3440	3979	3925	3939	3995
COP/USD	3174.50	3002.14	2920.46	2881.30	3000.71
10Y Treas. Yield (%)	8.66	8.20	7.59	7.00	7.11
3m Interbank (%)	3.86	6.30	6.95	6.97	5.46
GDP (YoY%)	3.1	-	-	-	-
PPI (YoY%)	9.57	8.56	9.64	3.38	1.62
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB	BBB	BBB	BBB	BBB
5Y CDS (bps)	244.76	215.66	205.42	169.93	164.22
FDI (%GDP)	4.02	-	-	-	-
Fiscal Budget (%GDP)	-3.09	-	-	-	-



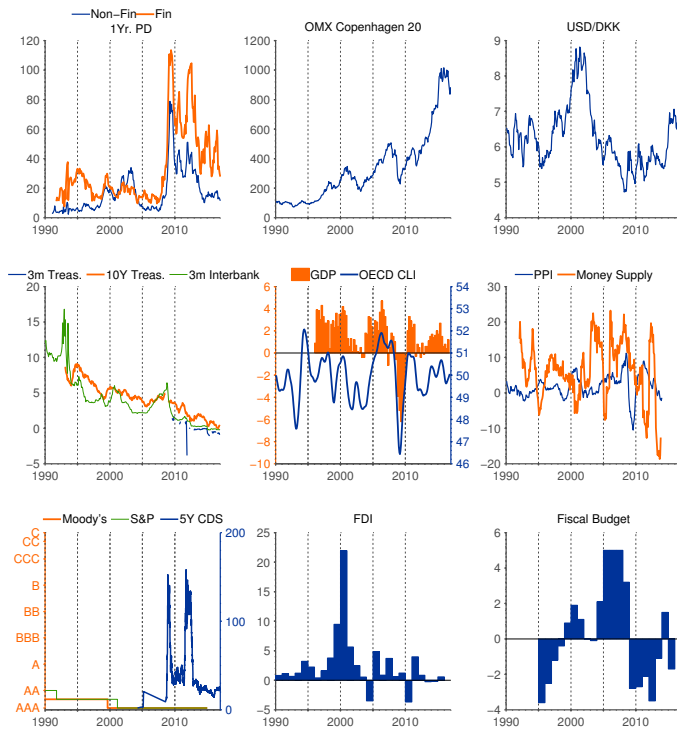
Croatia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	20.82	15.43	16.70	15.77	12.39
1Yr. PD, Fin.	26.57	12.85	14.38	11.96	7.96
CROBEX	1690	1670	1676	1941	1995
USD/HRK	7	7	7	7	7
3m Interbank (%)	0.92	0.58	0.55	0.61	0.57
GDP (YoY%)	1.6	-	-	-	-
PPI (YoY%)	-4.00	-5.50	-5.50	-3.20	-2.90*
Money Supply (YoY%)	5.15	3.41	4.60	4.29	3.48*
Sov. Rating, Moody's	Ba2	Ba2	Ba2	Ba2	Ba2
Sov. Rating, S&P	BB	BB	BB	BB	BB
5Y CDS (bps)	298.9	270.0	253.3	225.9	-
FDI (%GDP)	0.33	-	-	-	-
Fiscal Budget (%GDP)	-1.28	-	-	-	-



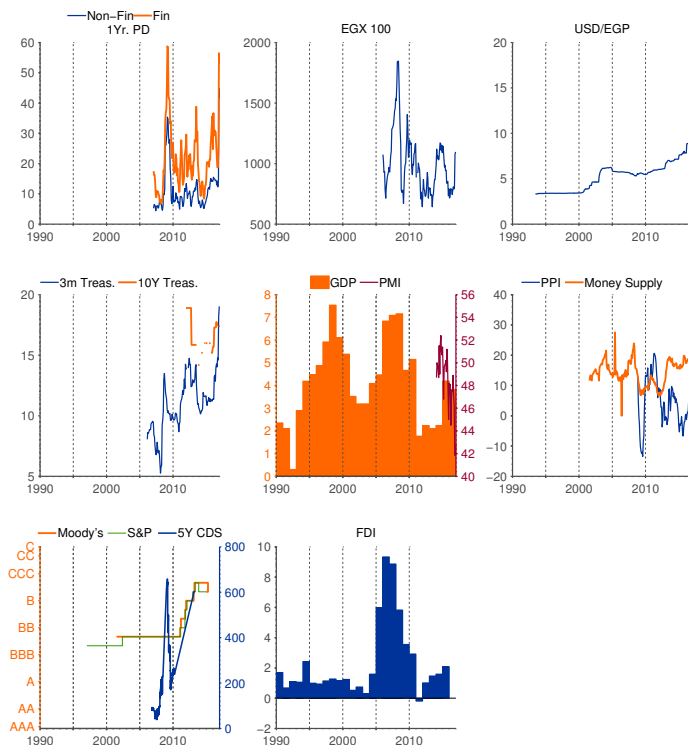
Cyprus	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	47.45	50.35	48.51	38.16	35.56
1Yr. PD, Fin.	32.37	34.61	28.00	31.33	21.11
CYSMMA	68	68	66	66	66
EUR/USD	2.92	2.82	2.88	3.00	3.52
3m Interbank (%)	-0.13	-0.24	-0.29	-0.30	-0.32
GDP (YoY%)	2.9	2.9	2.8	2.9	-
PMI	74.8	70.2	80.5	75.6	-
PPI (YoY%)	-1.9	-1.1	-0.8	0.1	-0.3*
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	BB	BB	BB	BB	BB
FDI (%GDP)	40.96	-	-	-	-
Fiscal Budget (%GDP)	-1.10	-	-	-	-



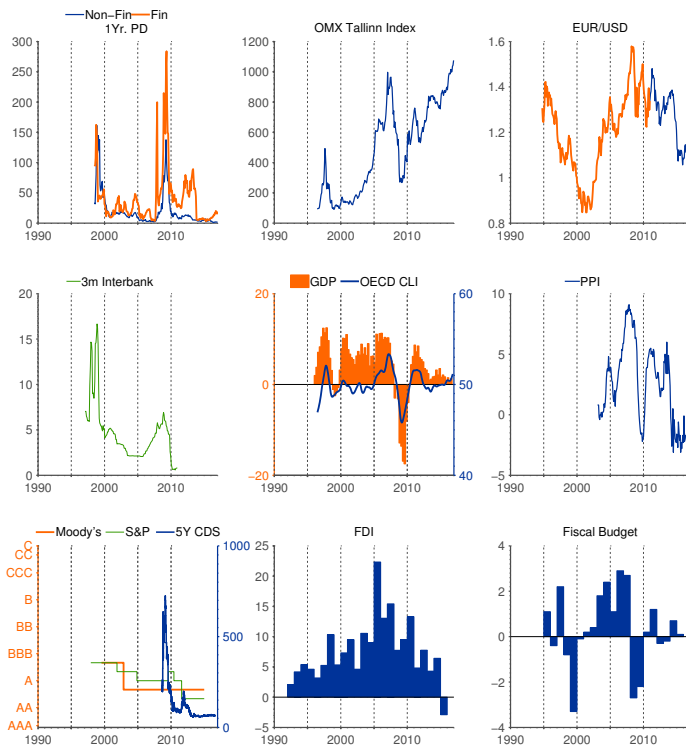
Czech Republic	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.14	6.54	7.17	4.74	4.58
1Yr. PD, Fin.	14.82	11.64	22.83	26.54	22.32
PX INDEX	956.3	899.9	816.9	863.6	921.6
USD/CZK	24.87	23.76	24.39	24.04	25.70
3m Treas. Yield (%)	-0.60	-0.00	-0.07	-0.72	-0.97
10Y Treas. Yield (%)	0.54	0.44	0.46	0.29	0.55
3m Interbank (%)	0.29	0.29	0.29	0.29	0.28
GDP (YoY%)	4.53	-	-	-	-
OECD CLI	100.35	99.99	99.95	100.77	100.81*
Money Supply (YoY%)	6.9	9.4*	-	-	-
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	-	-	43.34	-	-
FDI (%GDP)	1.34	-	-	-	-
Fiscal Budget (%GDP)	-0.60	-	-	-	-



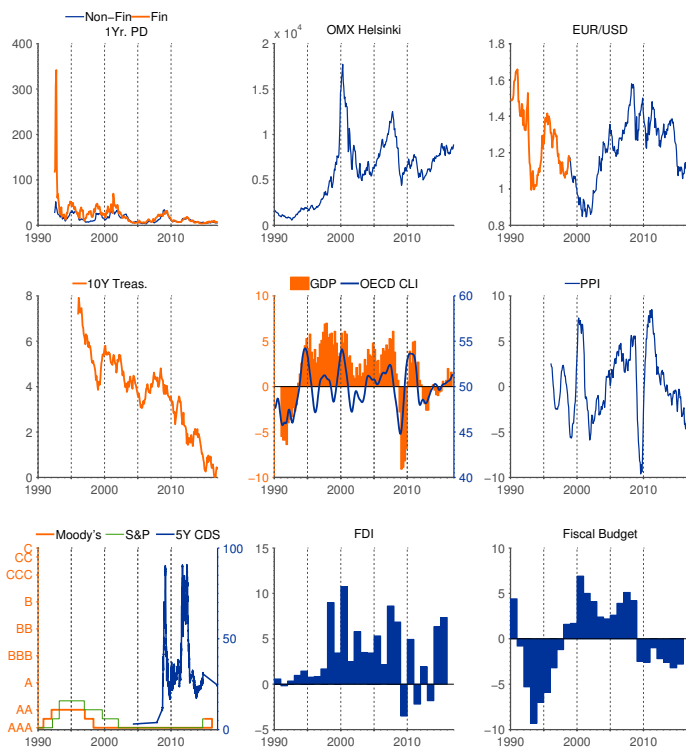
Denmark	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	13.59	17.44	18.30	13.80	11.47
1Yr. PD, Fin.	37.13	44.64	59.09	35.06	27.78
OMX Copenhagen 20	1014	948	958	897	884
USD/DKK	6.87	6.55	6.70	6.63	7.07
3m Treas. Yield (%)	-0.49	-0.48	-0.50*	-0.66	-0.79
10Y Treas. Yield (%)	0.97	0.44	0.09	0.01	0.33
3m Interbank (%)	-0.09	-0.08	-0.21	-0.19	-0.23
GDP (YoY%)	0.6	0.8	0.4	1.2	-
OECD CLI	100.02	99.63	99.76	99.97	100.05*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	14.32	21.68	23.16	23.69	22.69
FDI (%GDP)	0.57	-	-	-	-
Fiscal Budget (%GDP)	-1.70	-	-	-	-



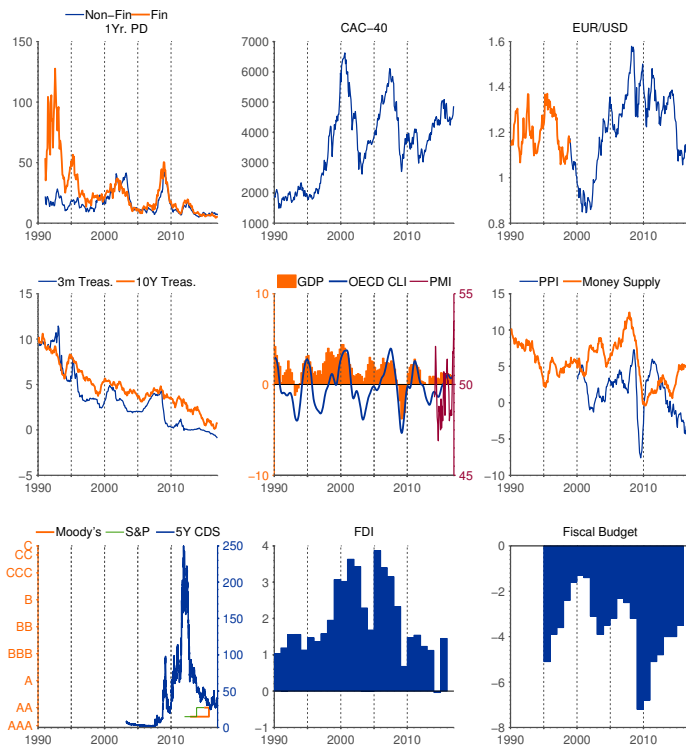
Egypt	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	14.19	14.95	14.43	12.30	41.87
1Yr. PD, Fin.	24.77	30.98	26.04	18.75	52.96
EGX 100	790.6	792.2	743.7	790.3	1096.0
USD/EGP	7.83	8.85	8.88	8.88	18.13
3m Treas. Yield (%)	11.34	13.22	13.96	14.78	19.04
10Y Treas. Yield (%)	15.50	17.30	17.30	17.40*	17.40
GDP (YoY%)	4.2	-	-	-	3.8
PMI	48.2	44.5	47.5	46.3	42.8
PPI (YoY%)	0.1	0.5	5.7	9.3	2.0
Money Supply (YoY%)	18.6	18.2	18.6	18.0	38.6*
Sov. Rating, Moody's	B3	B3	B3	B3	B3
Sov. Rating, S&P	B-	B-	B-	B-	B-
FDI (%GDP)	2.08	-	-	-	-



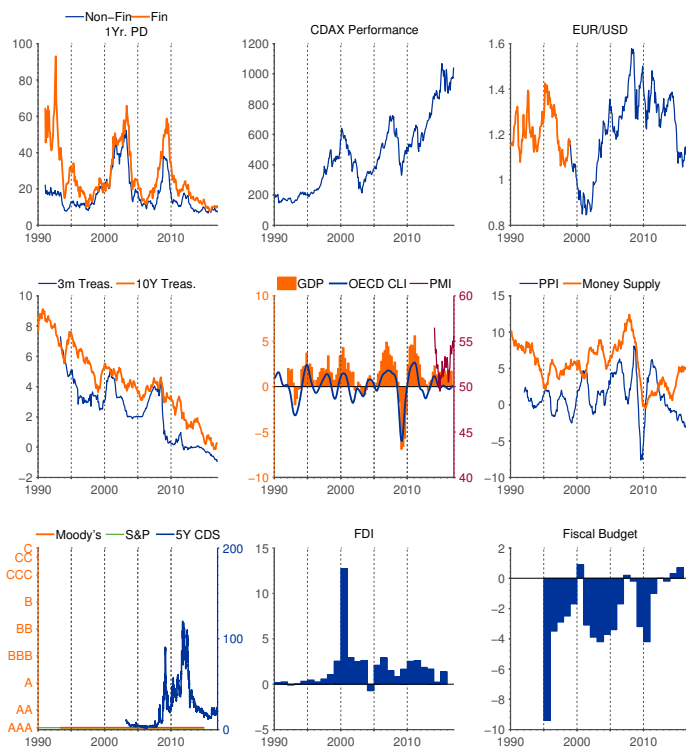
Estonia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	3.05	1.61	1.60	1.82	1.35
1Yr. PD, Fin.	8.17	9.26	12.57	20.12	19.16
OMX Tallinn Index	899.0	970.6	985.6	1001.3	1075.5
EUR/USD	1.09	1.14	1.11	1.12	-
GDP (YoY%)	0.9	1.5	0.6	1.3	-
OECD CLI	100.46	100.41	100.46	100.94	101.15*
PPI (YoY%)	-2.3	-2.0	-1.4	-0.9	1.5*
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	64.81	66.32	64.12	65.66*	-
FDI (%GDP)	-2.90	-	-	-	-
Fiscal Budget (%GDP)	0.10	-	-	-	-



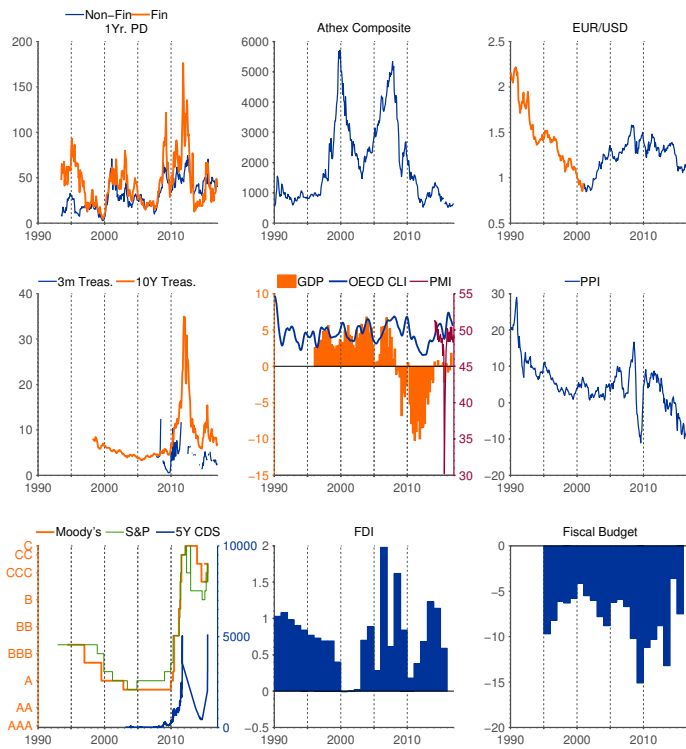
Finland	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	5.28	7.01	6.69	5.14	4.18
1Yr. PD, Fin.	7.46	8.60	9.99	7.03	6.96
OMX Helsinki	8596	8000	7904	8626	8902
EUR/USD	1.09	1.14	1.11	1.12	-
10Y Treas. Yield (%)	0.92	0.44	0.15	0.03	0.35
GDP (YoY%)	0.7	2.0	0.9	1.6	-
OECD CLI	100.52	100.65	100.80	101.28	101.38*
PPI (YoY%)	-2.5	-4.1	-3.4	-1.4	0.6*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
5Y CDS (bps)	-	-	-	-	24.1
FDI (%GDP)	7.34	-	-	-	-
Fiscal Budget (%GDP)	-2.80	-	-	-	-



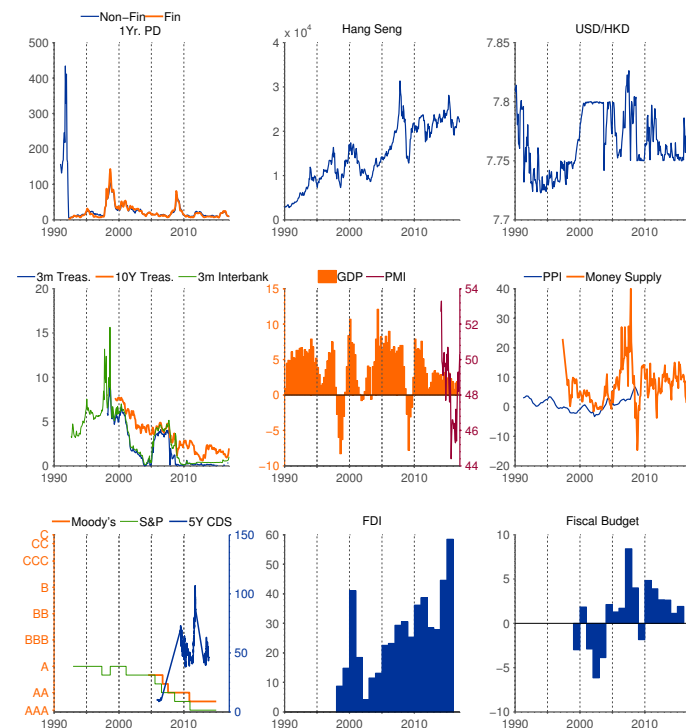
France	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	6.77	8.73	8.21	7.29	6.59
1Yr. PD, Fin.	6.09	6.99	5.75	4.41	4.54
CAC-40	4637	4385	4237	4448	4862
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.45	-0.42	-0.57	-0.69	-0.90
10Y Treas. Yield (%)	0.99	0.49	0.18	0.19	0.69
GDP (YoY%)	1.2	1.2	1.1	1.0	-
OECD CLI	100.53	100.48	100.34	100.42	100.50*
PMI	51.4	49.6	48.3	49.7	53.5
PPI (YoY%)	-2.7	-3.9	-3.1	-1.5	-0.2*
Money Supply (YoY%)	4.6	5.1	4.9	5.1	5.2
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
Sov. Rating, S&P	AA	AA	AA	AA	AA
5Y CDS (bps)	26.4	33.3	50.5	29.2	37.0
FDI (%GDP)	1.45	-	-	-	-
Fiscal Budget (%GDP)	-3.50	-	-	-	-



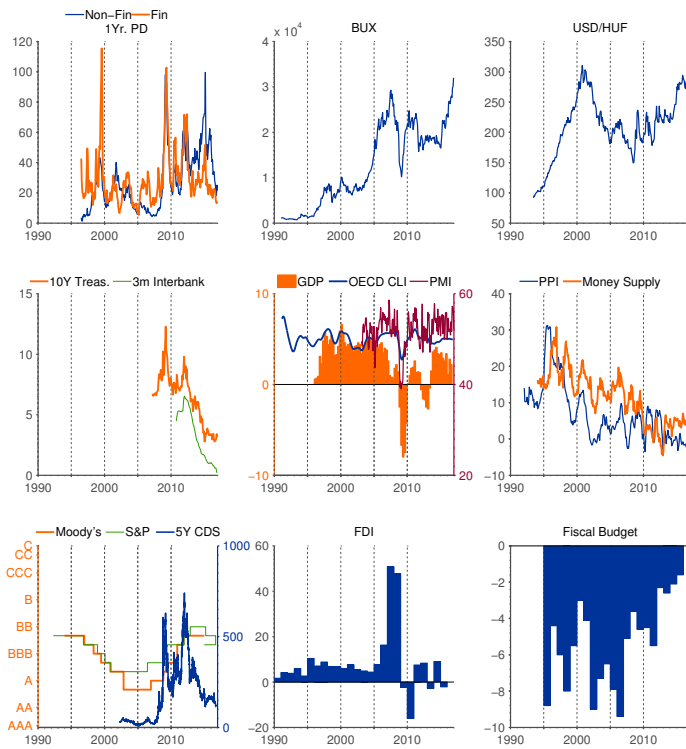
Germany	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.09	8.49	8.64	7.61	7.11
1Yr. PD, Fin.	7.49	10.13	10.18	9.57	9.38
CDAX Performance	979	915	893	971	1043
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.54	-0.59	-0.68	-0.80	-0.99
10Y Treas. Yield (%)	0.63	0.15	-0.13	-0.12	0.21
GDP (YoY%)	1.3	1.8	1.7	1.7	-
OECD CLI	99.83	99.72	99.79	100.05	100.16*
PMI	53.2	50.7	54.5	54.3	55.6
PPI (YoY%)	-2.3	-3.0	-2.2	-1.4	0.1*
Money Supply (YoY%)	4.6	5.1	4.9	5.1	5.2
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	12.87	18.69	22.27	19.18	21.78
FDI (%GDP)	1.37	-	-	-	-
Fiscal Budget (%GDP)	0.70	-	-	-	-



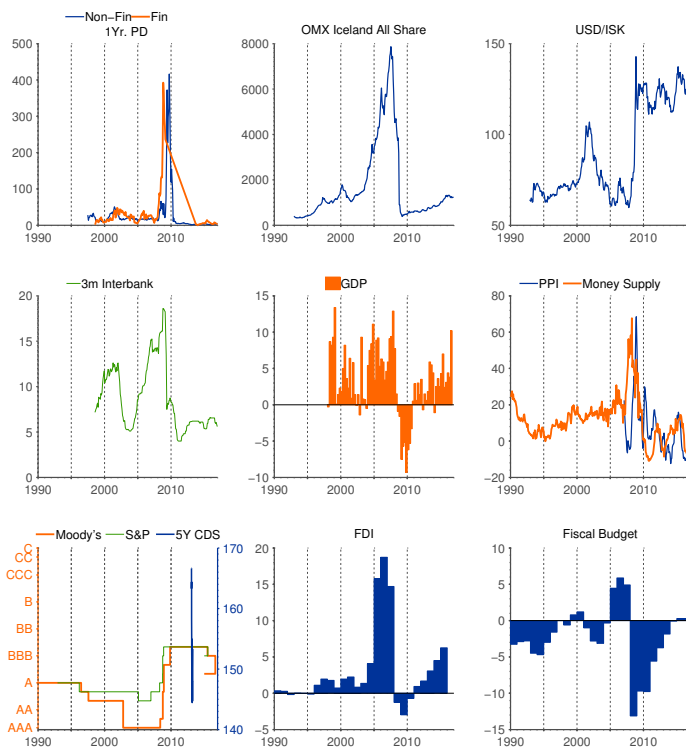
Greece	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	45.32	49.38	45.23	37.98	39.89
1Yr. PD, Fin.	31.02	38.22	33.56	35.16	41.08
Athex Composite	631	577	542	566	644
EUR/USD	1	1	1	1	-
3m Treas. Yield (%)	4.02	3.28	3.38	3.34	2.59
10Y Treas. Yield (%)	8.29	8.59	8.29	8.28	7.11
GDP (YoY%)	0.4	-0.8	-0.5	1.8	-
OECD CLI	101.75	102.34	101.55	100.89	100.56*
PMI	50.2	49.0	50.4	49.2	49.3
PPI (YoY%)	-5.7	-9.0	-7.3	-3.2	-2.1*
Sov. Rating, Moody's	Caa3	Caa3	Caa3	Caa3	Caa3
Sov. Rating, S&P	CCC+	CCC+	CCC+	CCC+	CCC+
FDI (%GDP)	0.59	-	-	-	-
Fiscal Budget (%GDP)	-7.50	-	-	-	-



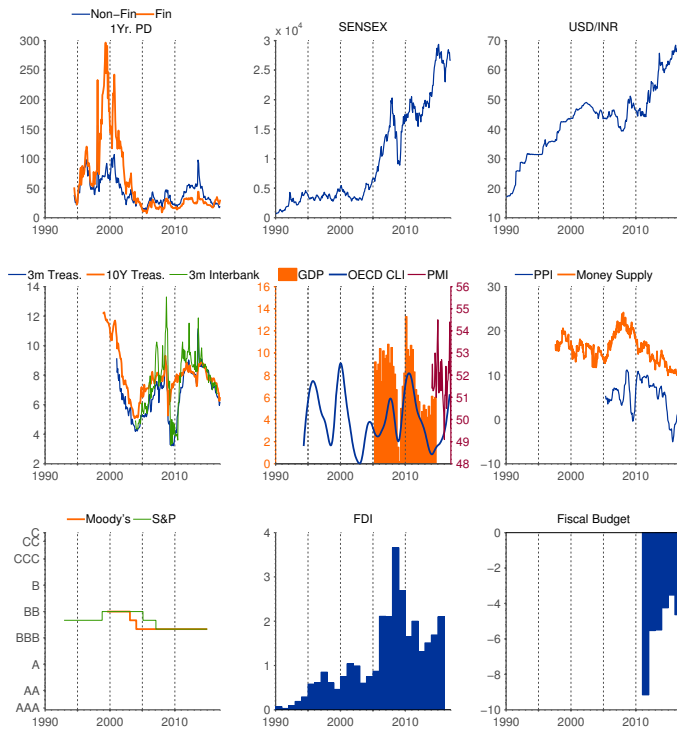
Hong Kong	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.54	22.81	18.82	10.35	9.96
1Yr. PD, Fin.	19.77	24.46	21.89	11.33	10.06
Hang Seng	21914	20777	20794	23297	22001
USD/HKD	7.75	7.76	7.76	7.76	7.76
3m Treas. Yield (%)	-	0.05	0.10*	-	0.33*
10Y Treas. Yield (%)	1.58	1.28	1.02	1.06	1.97
3m Interbank (%)	0.39	0.56	0.57	0.59	1.02
GDP (YoY%)	1.9	0.8	1.7	1.9	-
PMI	46.4	45.5	45.4	49.3	50.3
Money Supply (YoY%)	10.4	3.6	2.1	7.8	8.7*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	58.48	-	-	-	-
Fiscal Budget (%GDP)	1.91	-	-	-	-



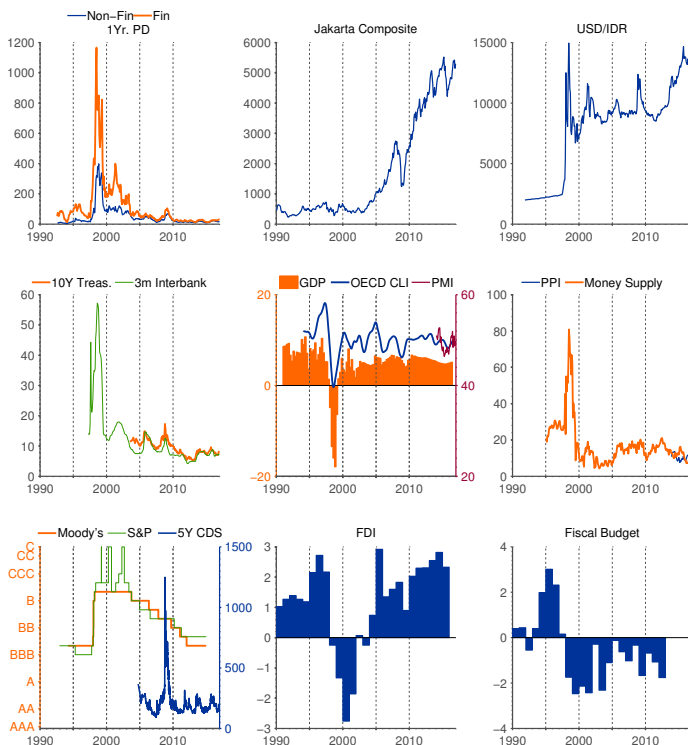
Hungary	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	58.11	41.81	33.56	21.56	21.72
1Yr. PD, Fin.	19.32	16.61	22.65	15.01	13.22
BUX	23920.7	26451.0	26325.6	27664.3	32003.0
USD/HUF	290.44	275.92	284.23	274.35	294.36
10Y Treas. Yield (%)	3.31	2.95	3.03	2.88	3.16
3m Interbank (%)	1.01	0.91	0.76	0.59	0.21
GDP (YoY%)	3.4	1.1	2.8	2.2	-
OECD CLI	100.05	100.06	100.03	99.93	99.98*
PMI	49.9	51.7	50.9	57.2	52.2
PPI (YoY%)	-1.3	-1.6	-2.6	-2.6	-0.5*
Money Supply (YoY%)	6.30	5.03	5.36	4.20	3.13*
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
5Y CDS (bps)	164.52	151.84	158.69	115.11	-
FDI (%GDP)	-2.16	-	-	-	-
Fiscal Budget (%GDP)	-1.60	-	-	-	-



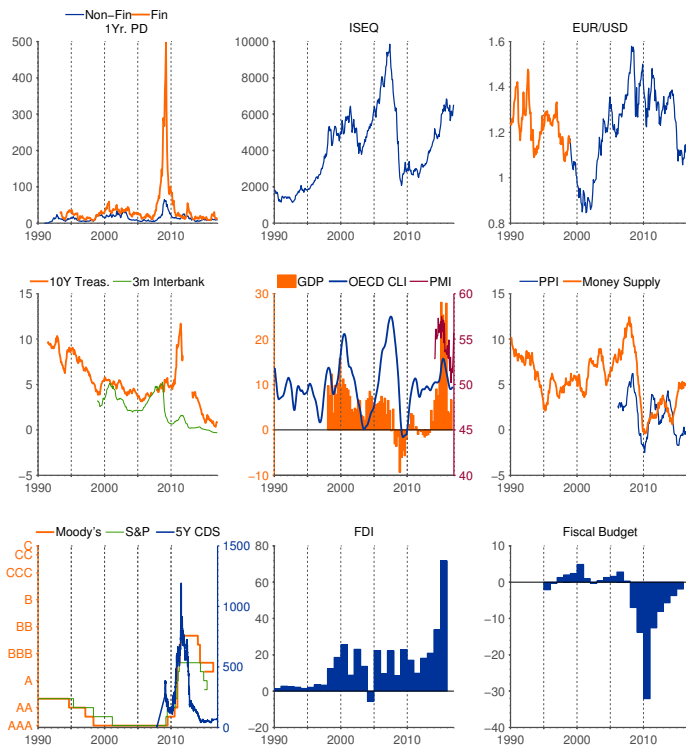
Iceland	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	1.43	1.61	3.22	2.89	3.53
1Yr. PD, Fin.	4.43	3.08	7.92	5.36	3.86
OMX Iceland All Share	1320	1321	1245	1209	1232
USD/ISK	130.18	123.42	123.18	113.82	113.34
3m Interbank (%)	6.55	6.55	6.55	5.95	5.60
GDP (YoY%)	3.1	4.4	3.8	10.2	-
PPI (YoY%)	-9.4	-10.7	-9.3	-5.5	-7.0*
Money Supply (YoY%)	5.57	-5.65	-6.98	-8.41	-10.15*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	BBB	BBB	BBB	BBB	BBB
FDI (%GDP)	6.26	-	-	-	-
Fiscal Budget (%GDP)	0.29	-	-	-	0.29



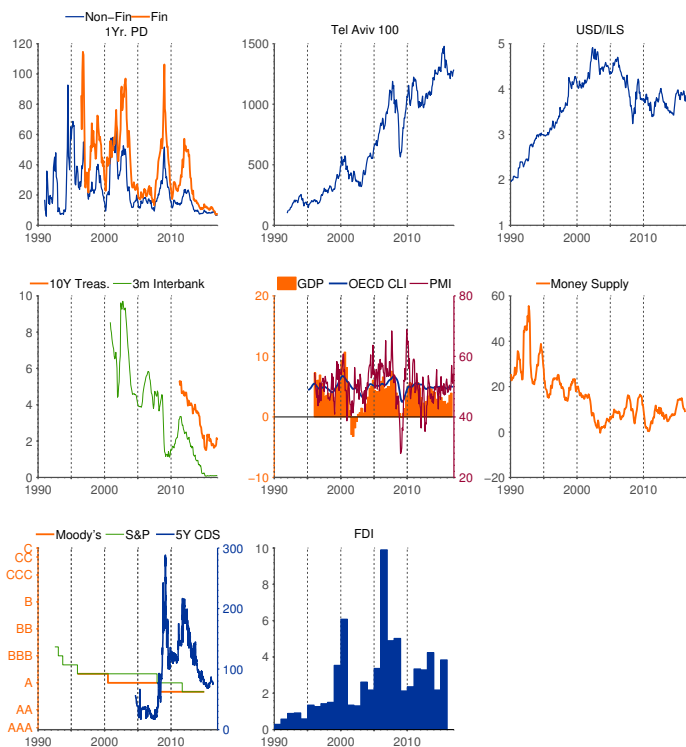
India	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.74	24.55	23.77	20.02	19.10
1Yr. PD, Fin.	19.60	29.90	35.10	26.06	30.49
SENSEX	26118	25342	27000	27866	26626
USD/INR	66.15	66.25	67.53	66.61	67.92
3m Treas. Yield (%)	7.15	7.13	6.65	6.42	6.20
10Y Treas. Yield (%)	7.76	7.46	7.45	6.82	6.51
3m Interbank (%)	7.25	7.50	6.75	6.75*	-
OECD CLI	99.42	99.79	100.32	100.93	101.14*
PMI	49.1	52.4	51.7	52.1	49.6
PPI (YoY%)	-1.1	-0.5	2.1	3.8	3.2*
Money Supply (YoY%)	10.70	10.30	10.40	12.10	6.50
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	2.10	-	-	-	-
Fiscal Budget (%GDP)	-3.53	-	-	-	-4.64



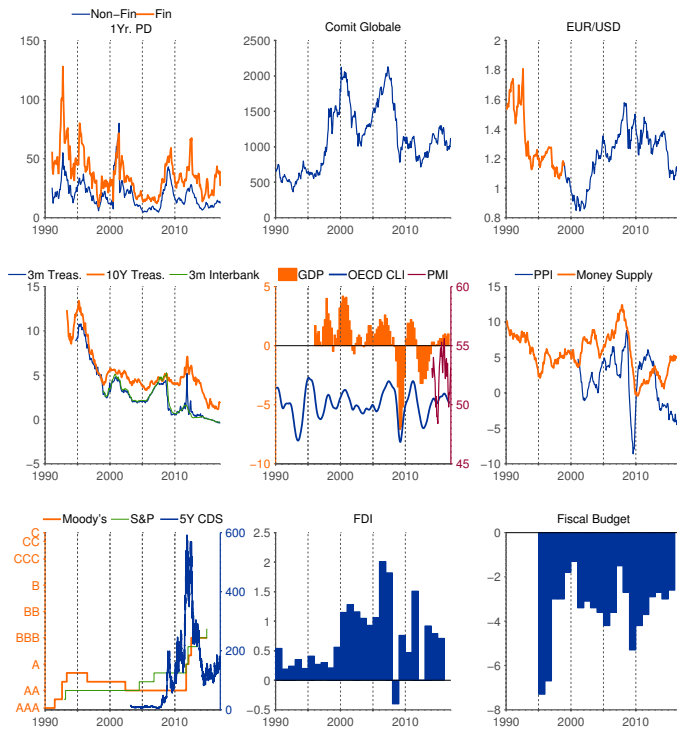
Indonesia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	21.54	21.80	18.72	16.20	16.73
1Yr. PD, Fin.	24.09	23.26	26.05	26.72	32.06
Jakarta Composite	4593	4845	5017	5365	5297
USD/IDR	13788.00	13239.00	13210.00	13042.00	13473.00
10Y Treas. Yield (%)	8.74	7.67	7.45	7.06	7.97
3m Interbank (%)	8.86	6.73	7.23	7.10	7.46
GDP (YoY%)	4.9	5.0	5.1	-	-
OECD CLI	98.43	99.15	99.76	100.09	100.04*
PMI	47.8	50.6	51.9	50.9	49.0
PPI (YoY%)	8.44	11.10	11.54	10.96	8.65
Money Supply (YoY%)	9.00	7.43	8.69	5.08	9.35*
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BB+	BB+	BB+	BB+	BB+
5Y CDS (bps)	229.9	198.3	185.2	152.1	157.9
FDI (%GDP)	2.33	-	-	-	-



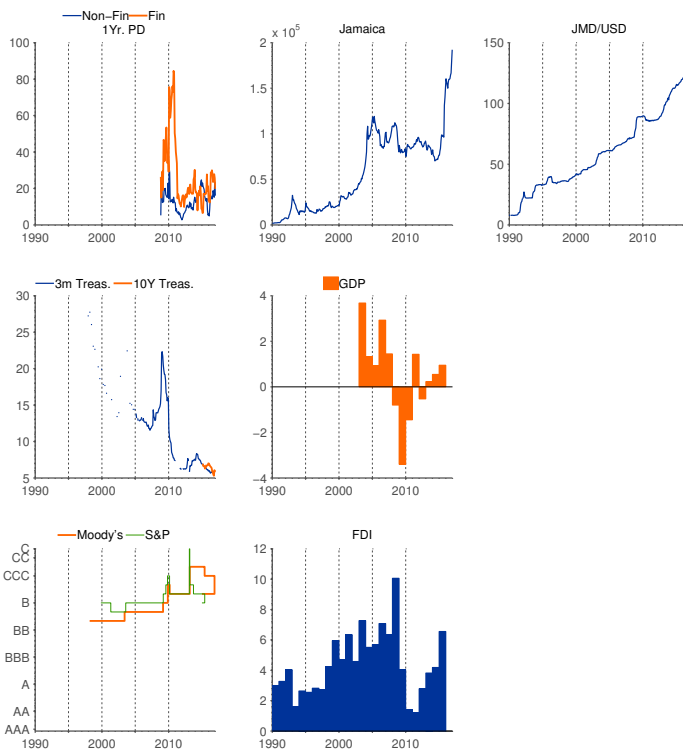
Ireland	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.57	10.35	10.03	8.48	9.10
1Yr. PD, Fin.	8.44	24.61	30.47	13.27	12.03
ISEQ	6792	6309	5642	6035	6517
EUR/USD	1.09	1.14	1.11	1.12	-
10Y Treas. Yield (%)	1.15	0.73	0.52	0.33	0.75
3m Interbank (%)	-0.13	-0.24	-0.29	-0.30	-0.32
GDP (YoY%)	27.9	4.0	3.7	6.6	-
OECD CLI	100.91	99.96	99.48	99.64	99.74*
PMI	54.2	54.9	53.0	51.3	55.7
PPI (YoY%)	0.0	-0.5	-0.4	-0.7	-0.2*
Money Supply (YoY%)	4.6	5.1	4.9	5.1	5.2
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	39.27	57.81	64.71*	-	63.75
FDI (%GDP)	71.72	-	-	-	-
Fiscal Budget (%GDP)	-1.90	-	-	-	-



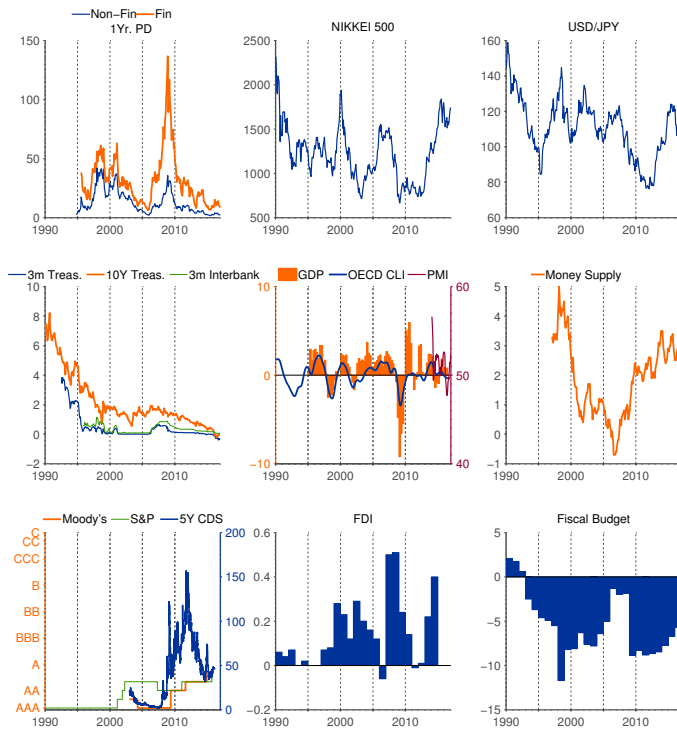
Israel	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.99	8.22	8.98	6.56	6.56
1Yr. PD, Fin.	12.07	11.33	9.42	6.93	7.28
Tel Aviv 100	1315	1250	1211	1262	1282
USD/ILS	3.89	3.76	3.86	3.76	3.84
10Y Treas. Yield (%)	2.10	1.85	1.63	1.73	2.06
3m Interbank (%)	0.10	0.10	0.08	0.10	0.10
GDP (YoY%)	2.1	2.3	3.6	3.9	-
OECD CLI	99.44	99.83	100.06	99.95	99.80*
PMI	50.7	49.0	48.8	52.1	54.3*
Money Supply (YoY%)	10.5	8.8	-	-	-
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	79.41	79.59	75.72*	-	-
FDI (%GDP)	3.84	-	-	-	-



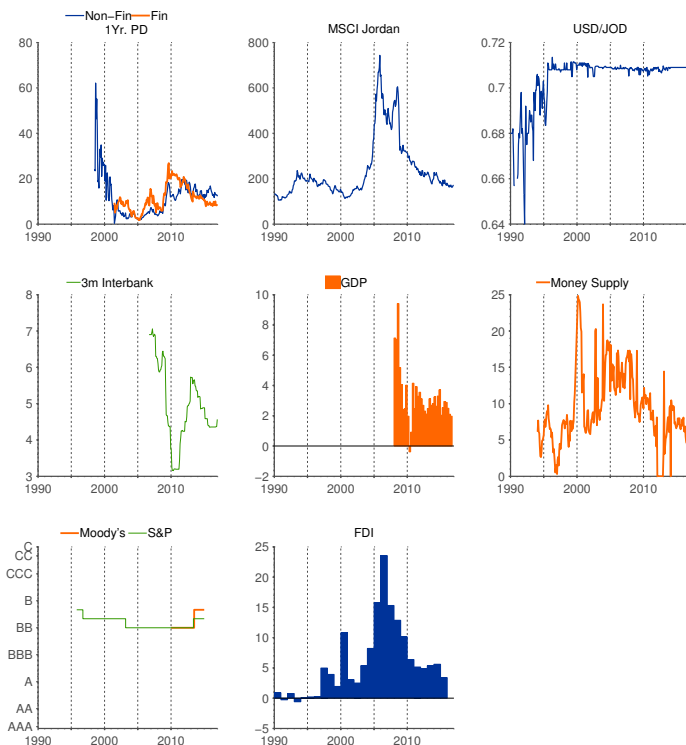
Italy	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	8.90	12.09	14.12	13.11	12.09
1Yr. PD, Fin.	18.80	36.59	43.56	39.45	26.75
Comit Globale	1218	1056	949	965	1124
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.09	-0.21	-0.28	-0.39	-0.46
10Y Treas. Yield (%)	1.60	1.22	1.26	1.19	1.81
3m Interbank (%)	-0.13	-0.24	-0.29	-0.30	-0.32
GDP (YoY%)	0.9	1.0	0.8	1.0	-
OECD CLI	100.95	100.76	100.44	100.18	100.13*
PMI	55.6	53.5	53.5	51.0	53.2
PPI (YoY%)	-3.9	-3.9	-3.4	-0.8	-0.3*
Money Supply (YoY%)	4.60	5.10	4.90	5.10	5.20
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
5Y CDS (bps)	97.23	126.70	152.05	150.82	157.22
FDI (%GDP)	0.71	-	-	-	-
Fiscal Budget (%GDP)	-2.60	-	-	-	-



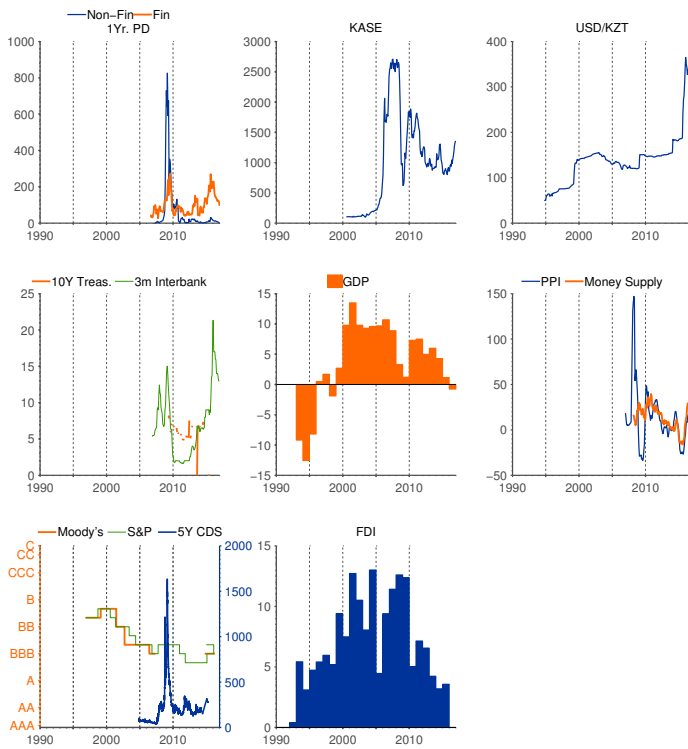
Jamaica	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	5.89	15.23	14.23	17.30	16.07
1Yr. PD, Fin.	13.36	16.11	29.97	27.05	19.72
Jamaica	150692	153911	159717	164474	192274
JMD/USD	119.97	121.56	126.55	127.58	128.85
3m Treas. Yield (%)	5.96	5.75	5.86	5.86	5.68
10Y Treas. Yield (%)	7.00	6.66	6.35	5.45	5.84
GDP (YoY%)	0.9	-	-	-	-
Sov. Rating, Moody's	B3	B3	B3	B3	B3
Sov. Rating, S&P	B	B	B	B	B
FDI (%GDP)	6.56	-	-	-	-



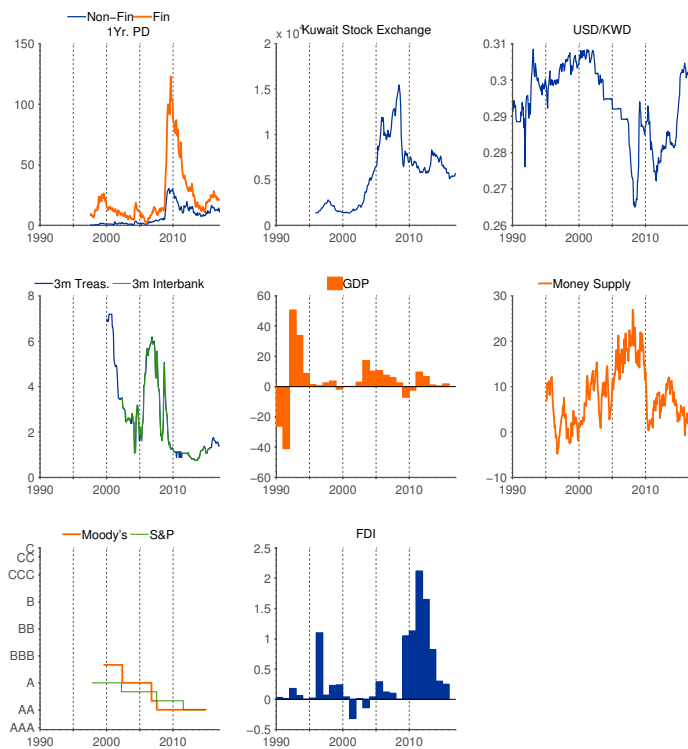
Japan	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	2.40	3.78	3.95	2.50	2.07
1Yr. PD, Fin.	9.07	10.63	13.41	10.71	8.59
NIKKEI 500	1754	1590	1513	1572	1744
USD/JPY	120.22	112.57	103.20	101.35	116.96
3m Treas. Yield (%)	-0.04	-0.12	-0.27	-0.40	-0.39
10Y Treas. Yield (%)	0.27	-0.03	-0.22	-0.09	0.05
3m Interbank (%)	0.17	0.10	0.06	0.06	0.06
GDP (YoY%)	0.8	0.1	0.8	-	-
OECD CLI	99.90	99.75	99.65	99.66	99.72*
PMI	52.6	49.1	48.1	50.4	52.4
Money Supply (YoY%)	2.50	2.60	2.90	3.00	3.40*
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	46.74	45.79	-	-	-
FDI (%GDP)	0.00	-	-	-	-
Fiscal Budget (%GDP)	-6.70	-	-	-	-5.67



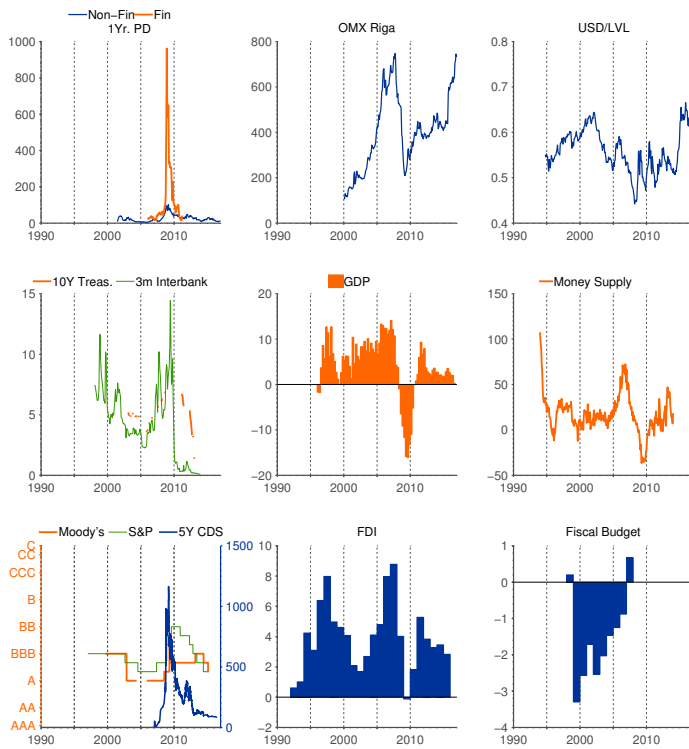
Jordan	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	15.39	12.65	11.70	12.82	12.27
1Yr. PD, Fin.	8.30	7.96	9.26	8.29	8.19
MSCI Jordan	180	170	166	163	172
USD/JOD	0.71	0.71	0.71	0.71	0.71
3m Interbank (%)	4.36	4.36	4.36	4.36	4.57
GDP (YoY%)	2.9	2.5	2.1	2.0	-
Money Supply (YoY%)	8.09	6.85	4.58	4.94	3.53*
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	3.40	-	-	-	-



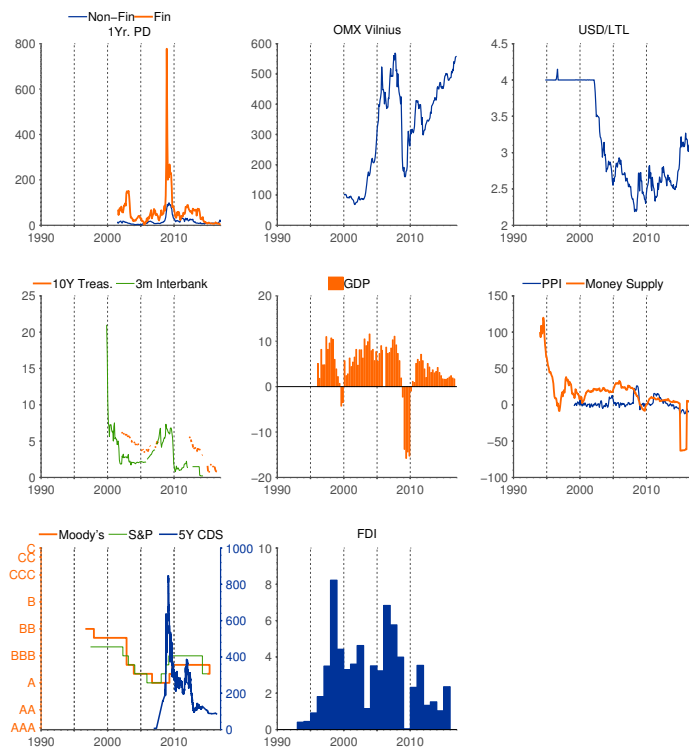
Kazakhstan	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	14.99	10.42	9.39	5.82	1.71
1Yr. PD, Fin.	195.42	162.97	137.47	123.11	95.48
KASE	859	971	985	1191	1358
USD/KZT	340.60	344.59	339.18	335.84	333.69
3m Interbank (%)	18.67	17.00	15.92	14.00	13.00
GDP (YoY%)	1.2	-	-	-	-0.8
PPI (YoY%)	-4.8	8.2	18.7	26.1	15.5
Money Supply (YoY%)	7.94	24.94	25.17	32.54	32.67*
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	3.57	-	-	-	-



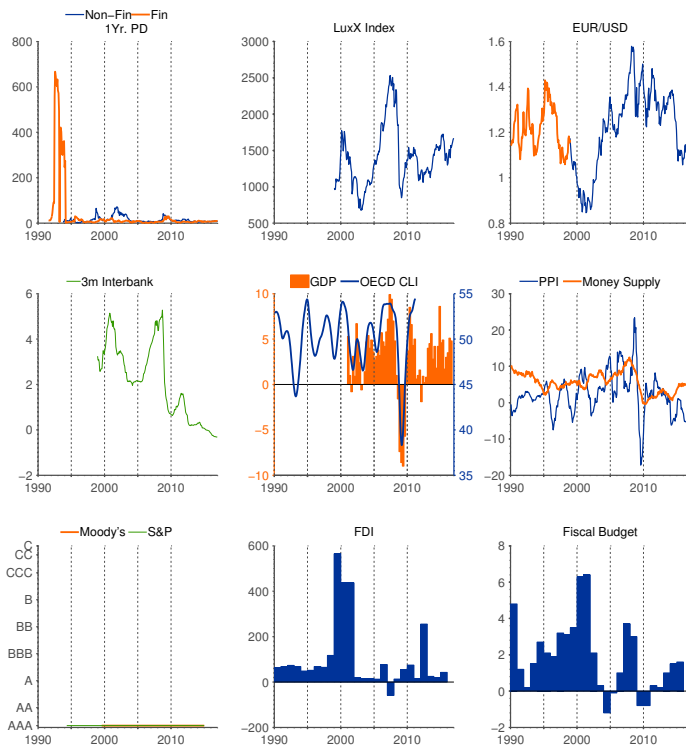
Kuwait	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	14.18	13.28	12.46	11.91	10.56
1Yr. PD, Fin.	22.75	24.36	24.15	21.24	20.33
Kuwait Stock Exchange	5615	5229	5365	5398	5748
USD/KWD	0.30	0.30	0.30	0.30	0.31
3m Treas. Yield (%)	1.69	1.63	1.50	1.56	1.44
GDP (YoY%)	1.9	-	-	-	-
Money Supply (YoY%)	1.72	4.16	1.67	2.56	4.89*
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
Sov. Rating, S&P	AA	AA	AA	AA	AA
FDI (%GDP)	0.25	-	-	-	-



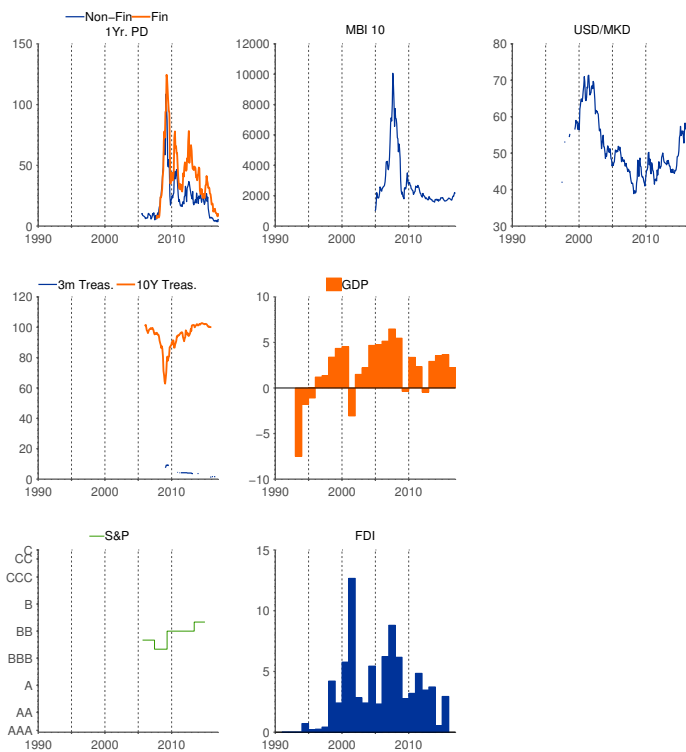
Latvia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	17.27	11.78	9.71	10.12	11.97
OMX Riga	594	616	621	709	734
USD/LVL	0.65	0.62	0.63	0.63	0.67
GDP (YoY%)	2.7	2.1	2.0	0.3	-
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	90.26*	88.57	81.82	-	-
FDI (%GDP)	2.83	-	-	-	-



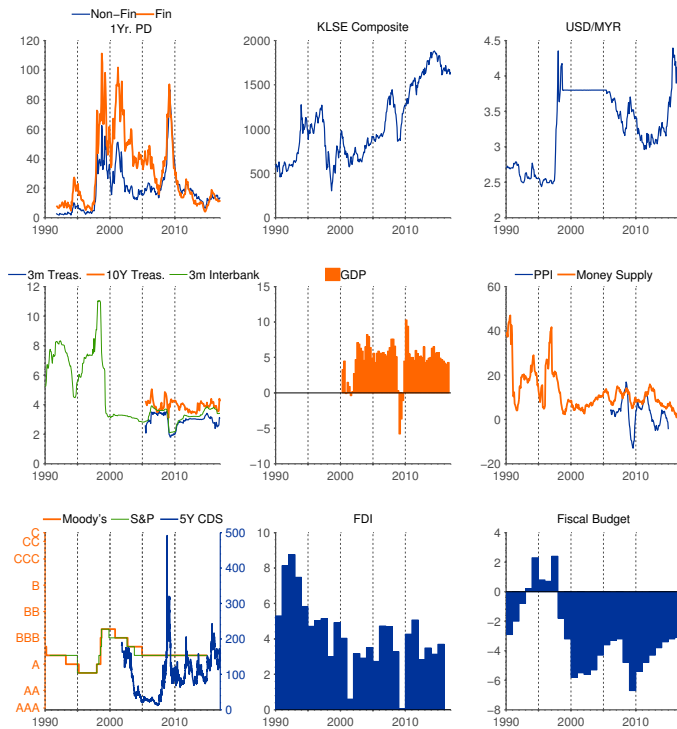
Lithuania	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	8.10	7.62	8.89	13.53	13.78
1Yr. PD, Fin.	6.63	12.82	7.99	7.34	4.66
OMX Vilnius	486	508	511	544	558
USD/LTL	3.18	3.03	3.11	3.07	3.28
10Y Treas. Yield (%)	1.49*	1.06	0.79	-	-
GDP (YoY%)	2.1	2.4	1.9	1.7	-
PPI (YoY%)	-7.9	-10.0	-6.9	-0.6	5.5
Money Supply (YoY%)	-61.50	5.30	5.10	6.60	5.50*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	-	90.64	83.52	-	-
FDI (%GDP)	2.36	-	-	-	-



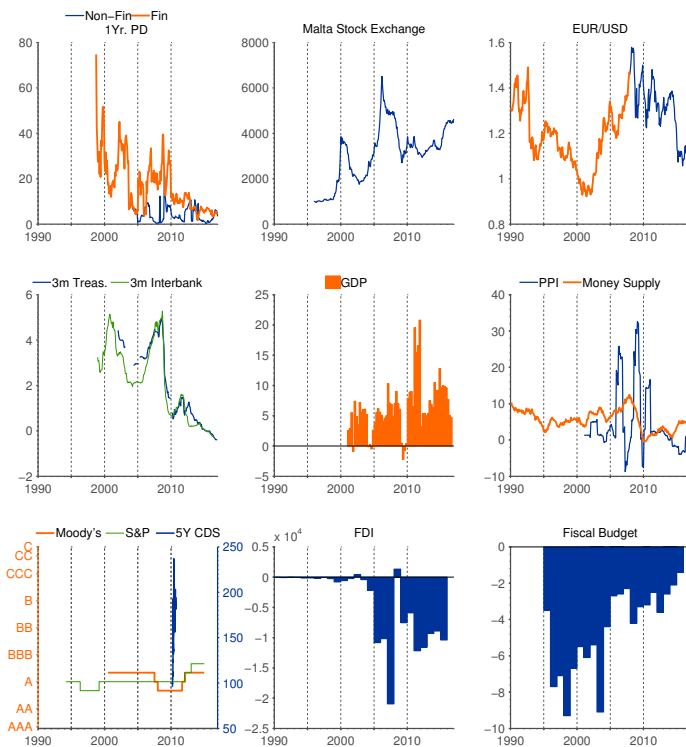
Luxembourg	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	5.45	8.54	10.64	8.32	8.10
1Yr. PD, Fin.	6.42	7.86	8.46	9.43	9.19
LuxX Index	1391	1451	1399	1578	1669
EUR/USD	1.09	1.14	1.11	1.12	-
3m Interbank (%)	-0.13	-0.24	-0.29	-0.30	-0.32
GDP (YoY%)	3.0	3.5	5.1	4.8	-
PPI (YoY%)	-3.0	-5.2	-4.7	-7.4	-6.5*
Money Supply (YoY%)	4.60	5.10	4.90	5.10	5.20
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	42.56	-	-	-	-
Fiscal Budget (%GDP)	1.60	-	-	-	-



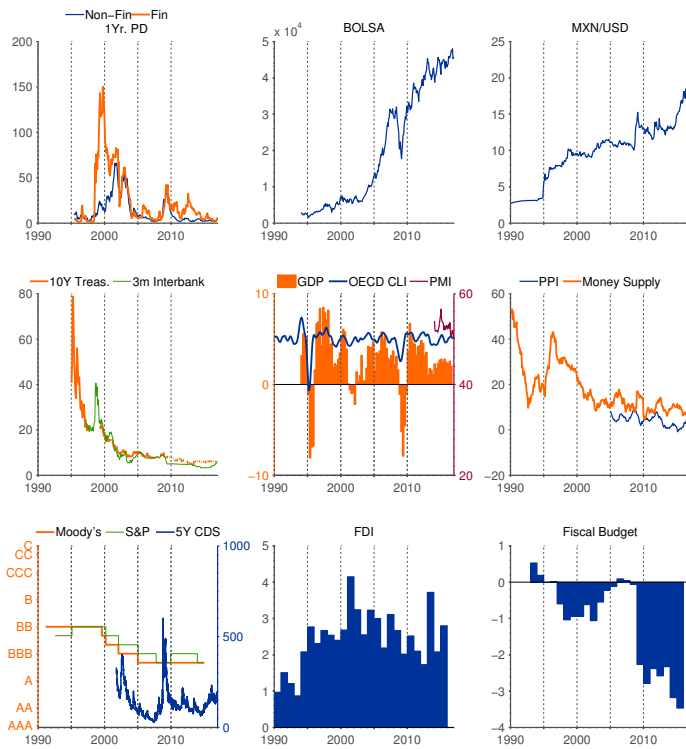
Macedonia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	6.52	5.11	4.60	3.64	5.80
1Yr. PD, Fin.	17.73	11.81	14.20	10.49	10.54
MBI 10	1833	1781	1707	1954	2135
USD/MKD	56.65	54.15	55.48	54.69	58.46
3m Treas. Yield (%)	1.35	1.60*	1.60	1.60*	-
10Y Treas. Yield (%)	100.05	-	-	-	-
GDP (YoY%)	3.7	-	-	-	2.2
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	2.94	-	-	-	-



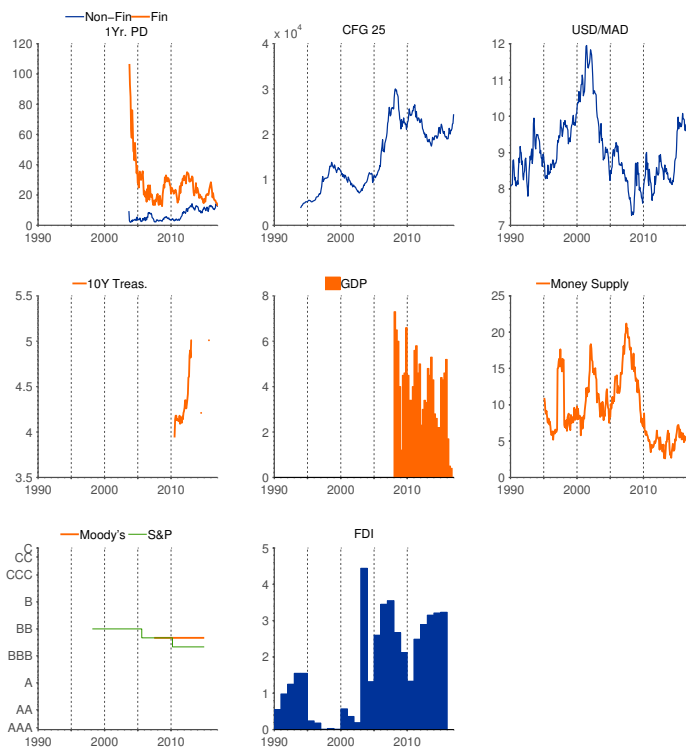
Malaysia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	12.78	14.68	15.01	12.51	13.21
1Yr. PD, Fin.	16.34	13.11	12.23	11.15	11.80
KLSE Composite	1693	1718	1654	1653	1642
USD/MYR	4.29	3.90	4.03	4.14	4.49
3m Treas. Yield (%)	2.74	2.39	2.69	2.58	3.06
10Y Treas. Yield (%)	4.19	3.80	3.74	3.55	4.23
3m Interbank (%)	3.84	3.71	3.65	3.40	3.41
GDP (YoY%)	4.5	4.2	4.0	4.3	-
Money Supply (YoY%)	2.60	0.90	1.90	2.20	2.90*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	180.22	153.00	154.51	120.84	138.38
FDI (%GDP)	3.70	-	-	-	-
Fiscal Budget (%GDP)	-3.20	-	-	-	-3.10



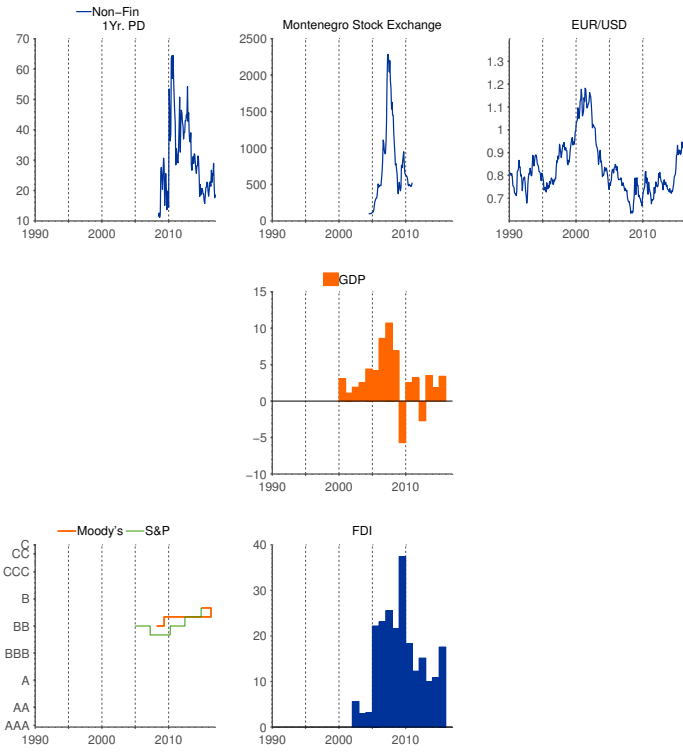
Malta	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	1.36	1.93	4.50	5.40	3.40
1Yr. PD, Fin.	4.80	3.37	3.95	5.61	4.39
Malta Stock Exchange	4431	4563	4561	4467	4631
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.10	-0.14	-0.28	-0.39	-0.39
3m Interbank (%)	-0.13	-0.24	-0.29	-0.29*	-
GDP (YoY%)	9.6	7.7	5.1	4.7	-
PPI (YoY%)	-2.9	-3.4	0.9	0.4	0.2*
Money Supply (YoY%)	4.60	5.00	4.90	-	-
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
FDI (%GDP)	-10383.30	-	-	-	-
Fiscal Budget (%GDP)	-1.40	-	-	-	-



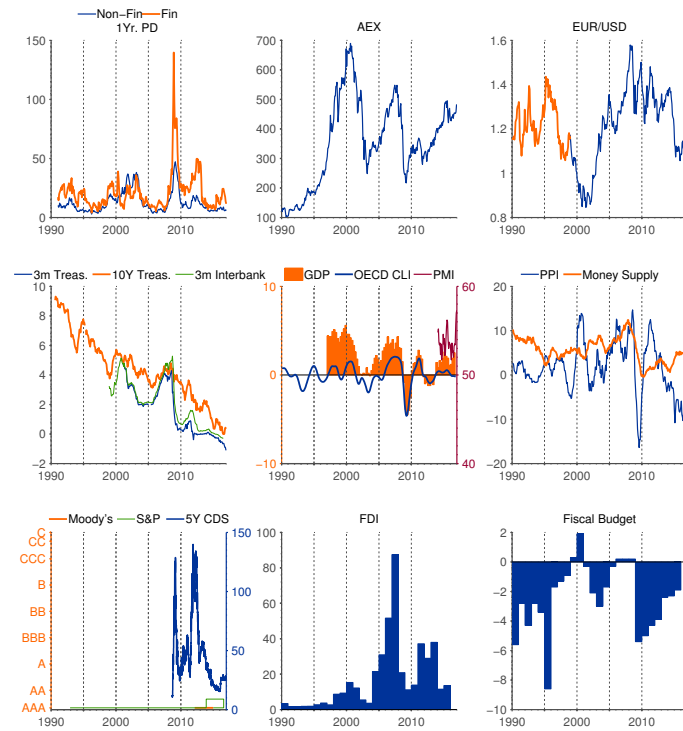
Mexico	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	2.59	2.10	2.73	2.30	3.89
1Yr. PD, Fin.	4.05	4.96	1.49	1.88	4.53
BOLSA	42978	45881	45966	47246	45643
MXN/USD	17.21	17.28	18.28	19.39	20.73
10Y Treas. Yield (%)	6.18*	6.03	6.08	5.99	6.09*
3m Interbank (%)	3.59	4.12	4.23	5.15	6.19
GDP (YoY%)	2.5	2.3	2.6	2.0	-
OECD CLI	99.53	100.21	100.55	100.33	100.04*
PMI	52.4	53.2	51.1	51.9	50.2
PPI (YoY%)	1.3	2.9	4.9	6.6	10.4
Money Supply (YoY%)	7.20	7.70	8.40	10.10	10.60*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	170.13	162.36	159.12	166.81	155.91
FDI (%GDP)	2.80	-	-	-	-
Fiscal Budget (%GDP)	-3.47	-	-	-	-



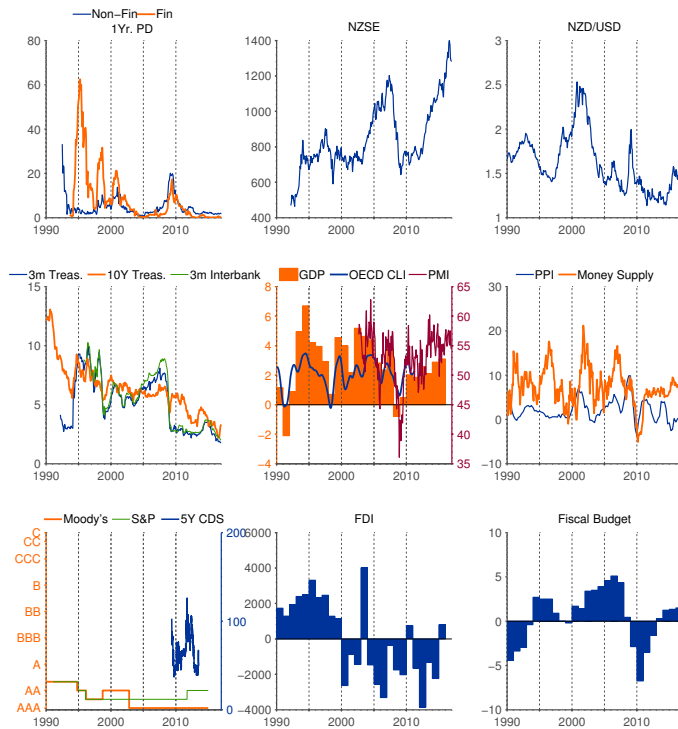
Morocco	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	12.16	12.10	10.27	14.17	12.28
1Yr. PD, Fin.	28.45	18.37	16.77	15.22	12.66
CFG 25	19002	19872	20098	21282	24464
USD/MAD	9.93	9.63	9.79	9.73	10.13
GDP (YoY%)	5.2	1.7	0.5	0.4	-
Money Supply (YoY%)	5.69	5.51	4.90	5.90	5.20*
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	3.23	-	-	-	-



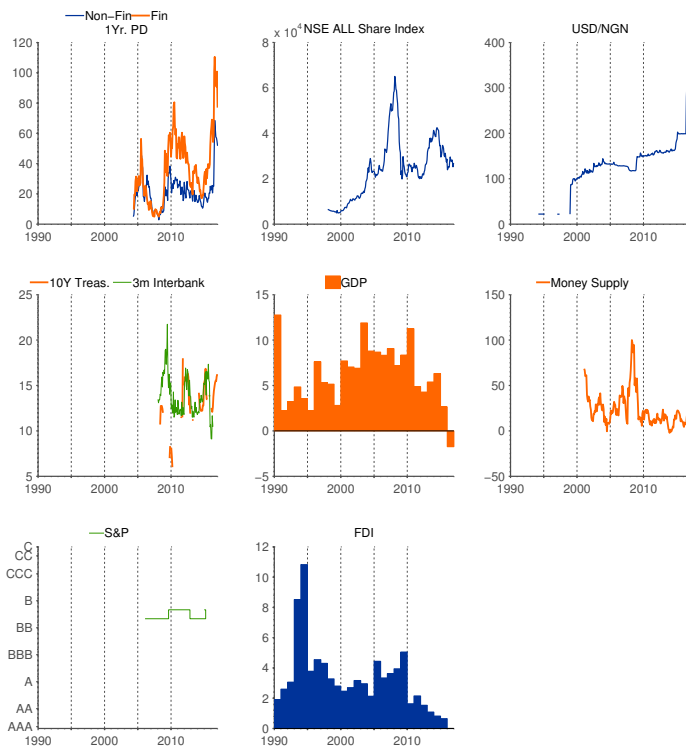
Montenegro	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.12	22.97	22.69	28.98	18.67
EUR/USD	0.92	0.88	0.90	0.89	0.95
GDP (YoY%)	3.4	-	-	-	-
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	17.55	-	-	-	-



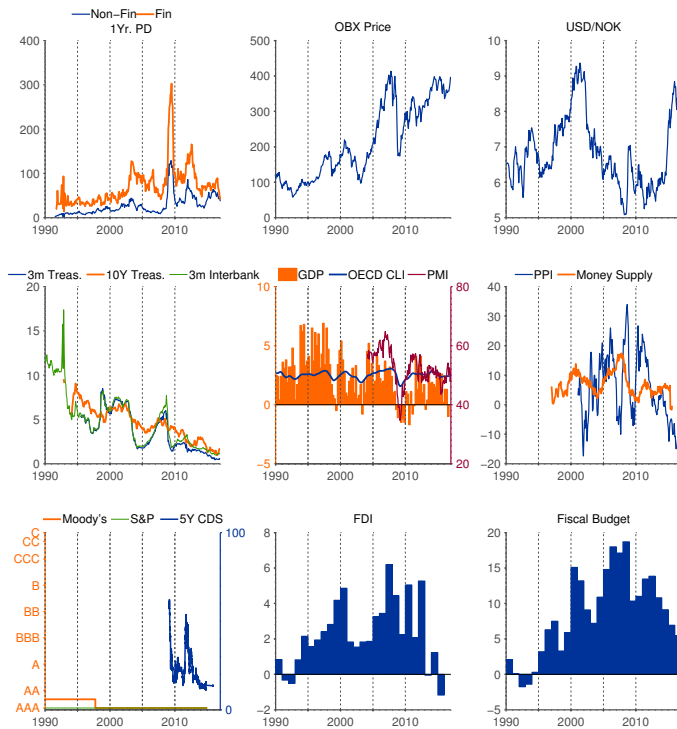
Netherlands	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.59	7.78	7.92	5.69	5.84
1Yr. PD, Fin.	10.87	15.29	24.30	19.61	11.60
AEX	442	440	436	452	483
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.50	-0.53	-0.66	-0.78	-1.11
10Y Treas. Yield (%)	0.79	0.36	0.09	0.00	0.36
3m Interbank (%)	-0.13	-0.24	-0.29	-0.29*	-
GDP (YoY%)	1.1	1.2	1.9	2.5	-
OECD CLI	100.08	99.88	99.88	99.84	99.85*
PMI	53.4	53.6	52.0	53.4	57.3
PPI (YoY%)	-7.2	-9.5	-6.4	-4.0	1.1*
Money Supply (YoY%)	4.60	5.00	4.90	-	-
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	15.88	25.60	26.67	25.11	27.65
FDI (%GDP)	13.57	-	-	-	-
Fiscal Budget (%GDP)	-1.90	-	-	-	-



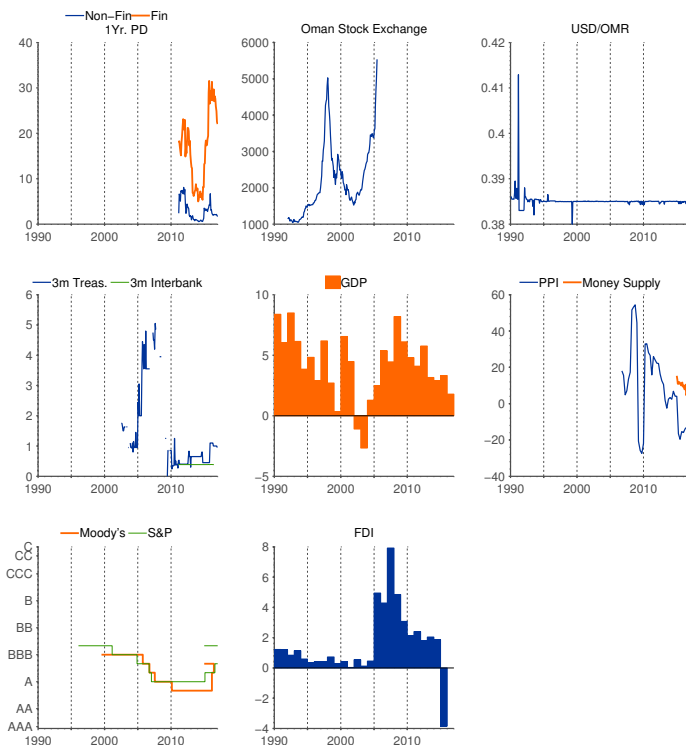
New Zealand	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	1.73	1.67	1.96	1.73	1.77
1Yr. PD, Fin.	0.18	0.18	0.50	0.26	0.24
NZSE	1217	1283	1305	1375	1281
NZD/USD	1.46	1.45	1.40	1.37	1.44
3m Treas. Yield (%)	2.50	1.94	2.09	1.91	1.75
10Y Treas. Yield (%)	3.57	2.93	2.35	2.27	3.33
3m Interbank (%)	2.75	2.35	2.42	2.20	2.00
GDP (YoY%)	3.1	-	-	-	-
PMI	56.9	54.9	57.6	57.5	54.4*
PPI (YoY%)	-0.6	0.1	0.5	0.1	-
Money Supply (YoY%)	8.10	7.80	5.90	4.80	5.90*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AA	AA	AA	AA	AA
FDI (%GDP)	796.80	-	-	-	-
Fiscal Budget (%GDP)	1.35	-	-	-	1.51



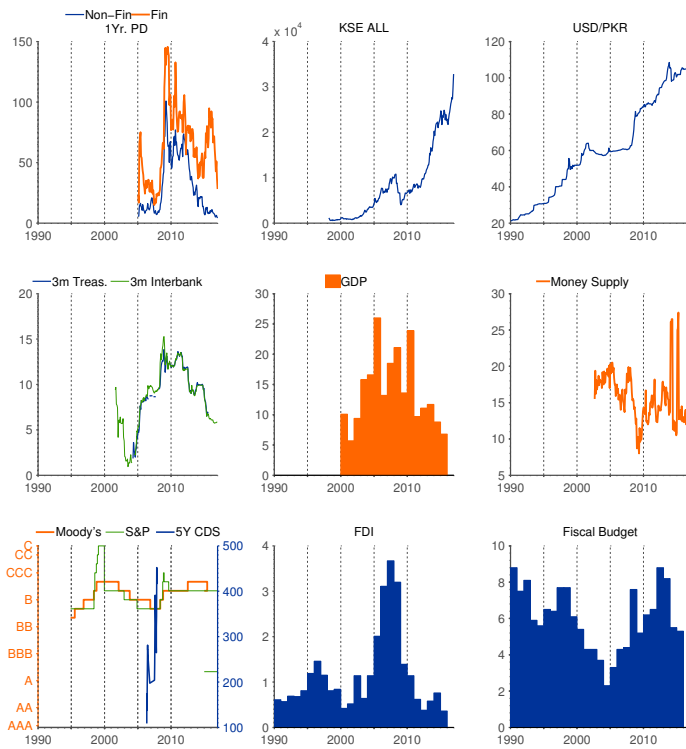
Nigeria	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	22.55	20.64	47.24	57.65	51.70
1Yr. PD, Fin.	60.97	61.88	100.86	96.42	76.96
NSE ALL Share Index	28642	25306	29598	28335	26875
USD/NGN	199.30	199.05	280.50	315.00	315.33
10Y Treas. Yield (%)	13.87*	12.09	14.40	15.54	16.24
3m Interbank (%)	10.68	11.66	10.45*	-	-
GDP (YoY%)	2.6	-	-	-	-1.8
Money Supply (YoY%)	5.82	6.94	15.28	18.18	22.36*
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	0.65	-	-	-	-



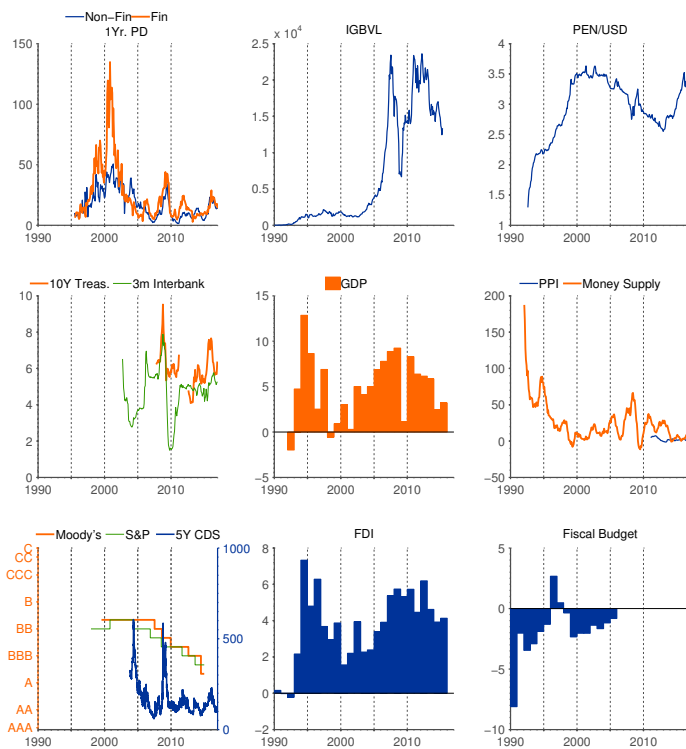
Norway	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	57.97	58.84	51.63	42.59	37.20
1Yr. PD, Fin.	74.09	76.97	82.23	64.52	40.91
OBX Price	362	346	353	358	397
USD/NOK	8.84	8.27	8.36	7.98	8.64
3m Treas. Yield (%)	0.57	0.44	0.54	0.48	0.51
10Y Treas. Yield (%)	1.48	1.21	1.01	1.21	1.65
3m Interbank (%)	1.13	1.00	1.01	1.15	1.17
GDP (YoY%)	0.2	1.3	1.3	-1.0	-
OECD CLI	99.60	99.63	99.65	99.75	99.80*
PMI	47.1	47.4	53.4	52.5	51.4
PPI (YoY%)	-10.8	-14.9	-9.7	-6.1	7.2
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	13.41*	-	-	-	-
FDI (%GDP)	-1.17	-	-	-	-
Fiscal Budget (%GDP)	6.94	-	-	-	5.48



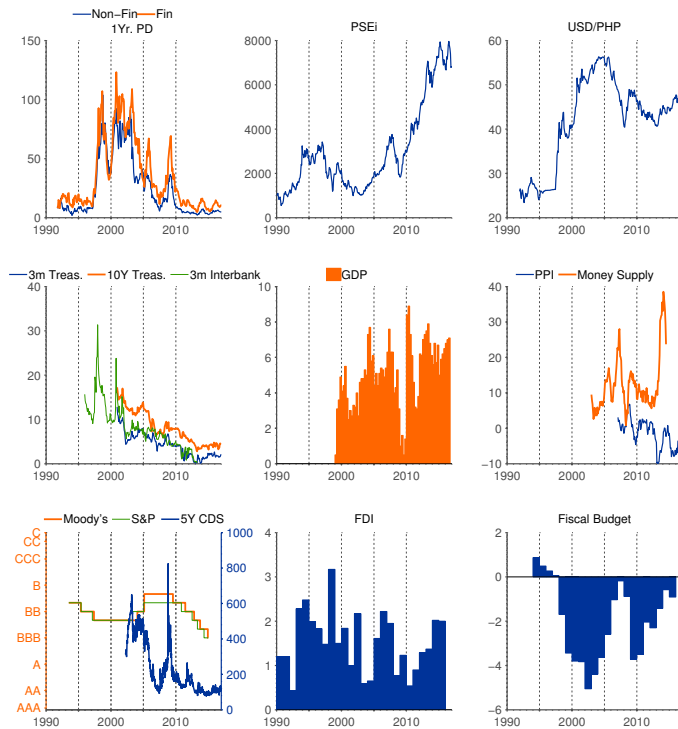
Oman	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	3.04	2.11	2.14	2.05	1.67
1Yr. PD, Fin.	27.26	27.27	27.07	25.96	22.05
USD/OMR	0.39	0.39	0.38	0.39	0.39
3m Treas. Yield (%)	1.10	1.10	1.00	1.00	0.95
3m Interbank (%)	0.39	0.39	0.39	-	-
GDP (YoY%)	3.3	-	-	-	1.8
PPI (YoY%)	-15.9	-13.9	-12.9	-	-
Money Supply (YoY%)	10.02	7.89	5.35	5.57	3.85*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	-3.85	-	-	-	-



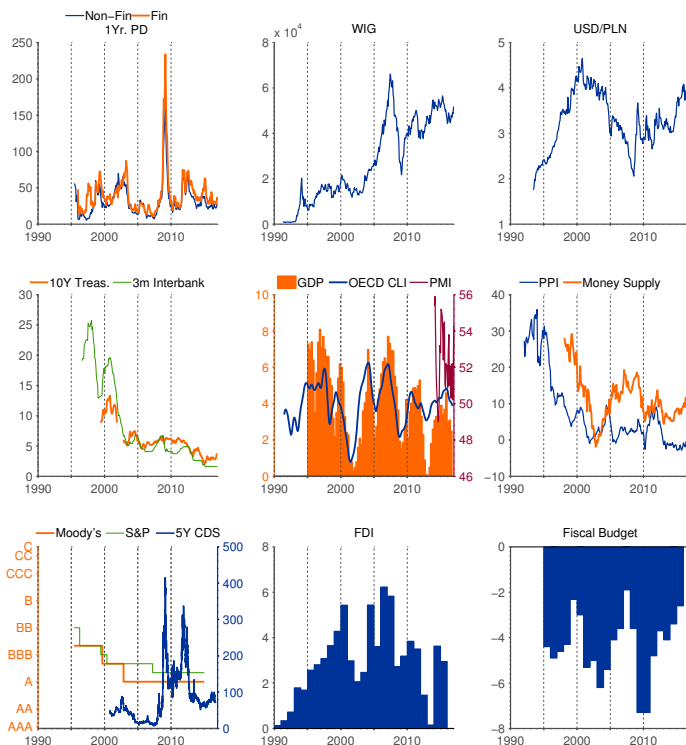
Pakistan	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.19	9.38	7.63	5.31	4.24
1Yr. PD, Fin.	78.84	86.38	71.63	42.72	28.14
KSE ALL	22937	22897	25313	27682	32842
USD/PKR	104.74	104.75	104.73	104.66	104.83
3m Interbank (%)	6.24	6.10	5.80	5.79	5.87
GDP (YoY%)	6.8	-	-	-	-
Money Supply (YoY%)	13.00	13.50	13.70	12.70	14.40*
Sov. Rating, Moody's	B3	B3	B3	B3	B3
Sov. Rating, S&P	A-	A-	A-	A-	A-
FDI (%GDP)	0.36	-	-	-	-
Fiscal Budget (%GDP)	5.30	-	-	-	-



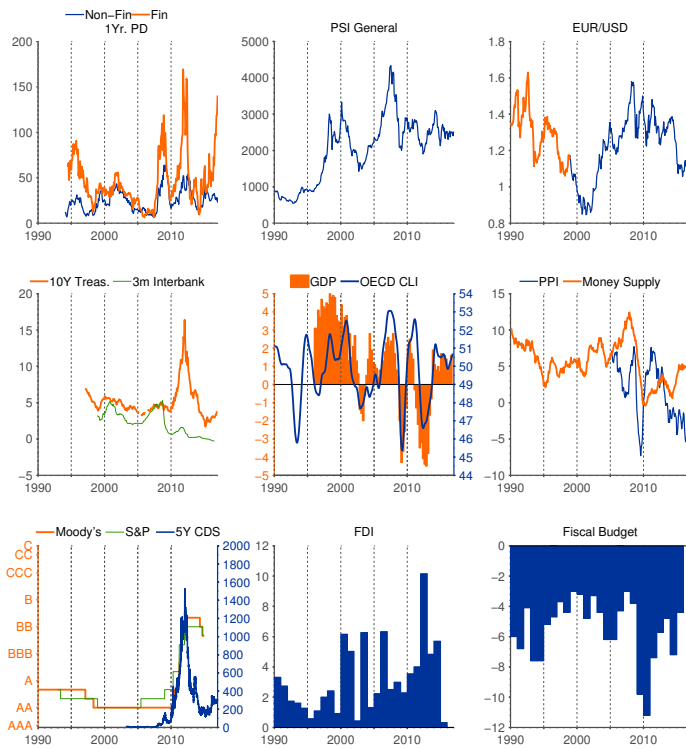
Peru	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	20.43	18.09	22.99	14.04	13.76
1Yr. PD, Fin.	24.51	21.15	22.70	16.36	13.93
PEN/USD	3.41	3.31	3.29	3.38	3.36
10Y Treas. Yield (%)	7.31	6.95	6.08	5.77	6.38
3m Interbank (%)	5.16	5.59	5.76	5.24	5.27
GDP (YoY%)	3.2	-	-	-	-
PPI (YoY%)	2.6	1.8	1.0	1.5	1.9
Money Supply (YoY%)	3.40	4.00	8.60	18.00	15.70*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	187.66	162.62	138.66	102.69	108.02
FDI (%GDP)	4.13	-	-	-	-



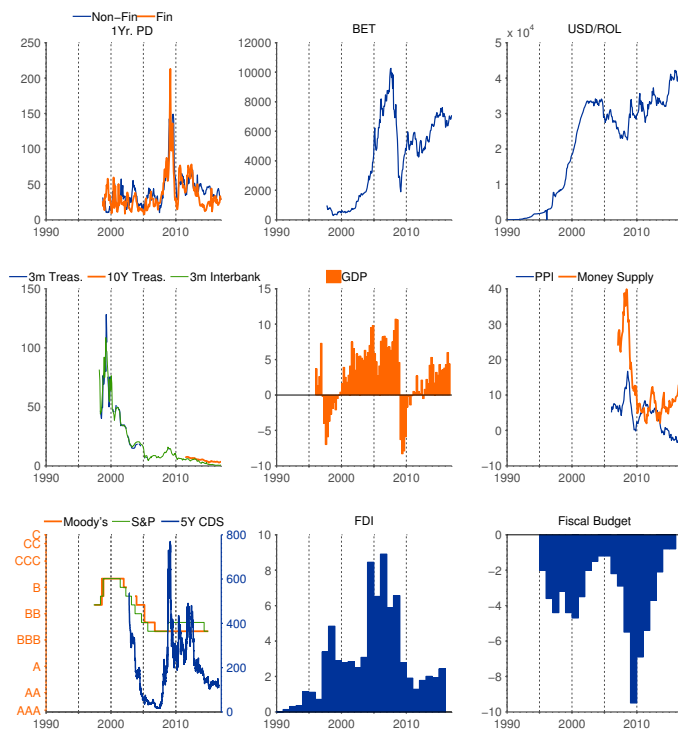
Philippines	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	4.98	5.45	6.48	5.22	4.79
1Yr. PD, Fin.	12.07	12.82	10.29	8.98	10.44
PSEi	6952	7262	7796	7630	6841
USD/PHP	46.91	45.97	47.16	48.47	49.60
3m Treas. Yield (%)	2.67	1.76	1.76	1.59	2.15
10Y Treas. Yield (%)	4.10	4.71	4.22	3.65	4.63
GDP (YoY%)	6.5	6.8	7.0	7.1	-
PPI (YoY%)	-7.4	-6.9	-3.7	-3.7	-3.5*
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB	BBB	BBB	BBB	BBB
5Y CDS (bps)	107.67	105.32	114.17	116.82	109.67
FDI (%GDP)	2.00	-	-	-	-
Fiscal Budget (%GDP)	-0.91	-	-	-	-



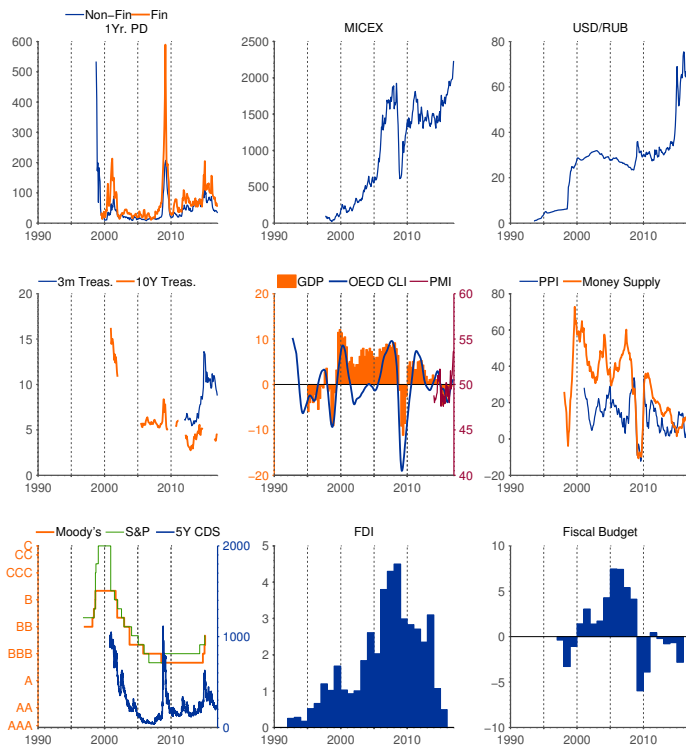
Poland	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	24.22	21.65	27.41	21.91	26.98
1Yr. PD, Fin.	30.75	27.36	31.06	27.20	33.14
WIG	46467	49017	44749	47085	51754
USD/PLN	3.92	3.73	3.94	3.82	4.19
10Y Treas. Yield (%)	2.94	2.84	2.91	2.92	3.63
3m Interbank (%)	1.62	1.57	1.61	1.61	1.63
GDP (YoY%)	4.6	3.0	3.1	2.5	-
OECD CLI	100.78	100.32	100.11	99.94	99.87*
PMI	52.1	53.8	51.8	52.2	54.3
PPI (YoY%)	-0.8	-1.9	-0.8	0.2	1.7*
Money Supply (YoY%)	9.10	9.10	11.40	9.40	9.70*
Sov. Rating, Moody's	A2	A2	A2	A2	A2
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	74.17	87.14	85.92	70.50	-
FDI (%GDP)	2.95	-	-	-	-
Fiscal Budget (%GDP)	-2.60	-	-	-	-



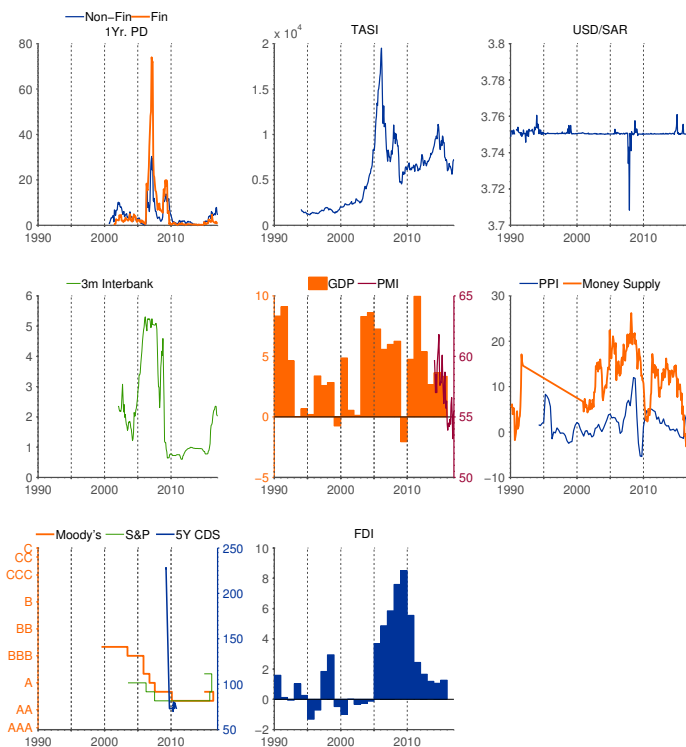
Portugal	2015		2016			
	Q4	Q1	Q2	Q3	Q4	
1Yr. PD, Non-Fin. (bps)	24.68	30.88	32.68	28.19	22.56	
1Yr. PD, Fin.	40.60	52.20	63.42	96.68	140.65	
PSI General	2524	2466	2370	2481	2520	
EUR/USD	1.09	1.14	1.11	1.12	-	
10Y Treas. Yield (%)	2.52	2.94	3.01	3.33	3.76	
3m Interbank (%)	-0.13	-0.24	-0.29	-0.29*	-	
GDP (YoY%)	1.4	0.9	0.9	1.6	-	
OECD CLI	99.90	99.96	100.30	100.60	100.70*	
PPI (YoY%)	-1.4	-4.8	-4.2	-1.9	0.0*	
Money Supply (YoY%)	4.60	5.00	4.90	-	-	
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1	
Sov. Rating, S&P	BB+	BB+	BB+	BB+	BB+	
5Y CDS (bps)	170.51	264.40	310.71	302.70	274.01	
FDI (%GDP)	0.32	-	-	-	-	
Fiscal Budget (%GDP)	-4.40	-	-	-	-	



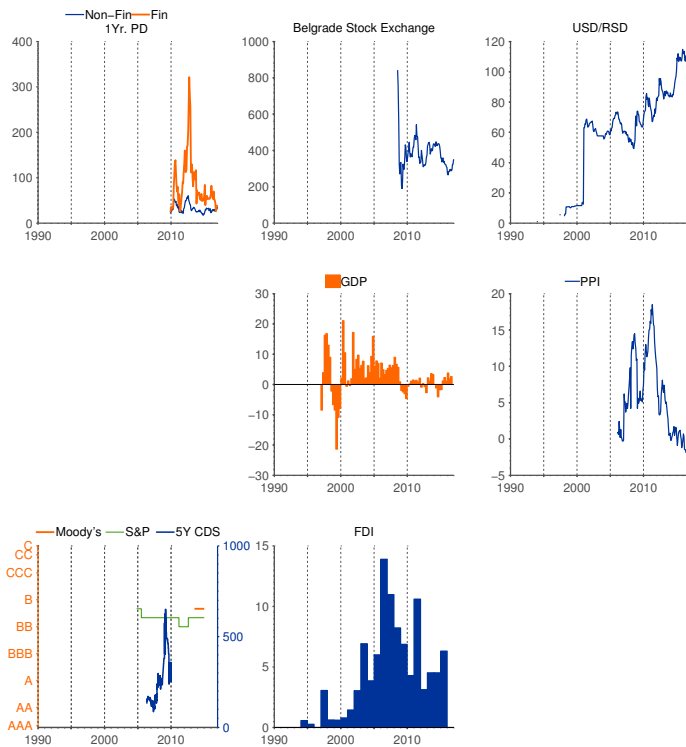
Romania	2015		2016			
	Q4	Q1	Q2	Q3	Q4	
1Yr. PD, Non-Fin. (bps)	29.72	28.50	43.09	33.81	29.82	
1Yr. PD, Fin.	30.70	23.55	20.73	24.20	28.30	
BET	7004	6738	6473	6937	7085	
USD/ROL	41634.01	39272.91	40746.75	39525.00	43130.51	
10Y Treas. Yield (%)	3.71	3.32	3.40	2.84	3.47	
3m Interbank (%)	0.81	0.57	0.60	0.50	0.68	
GDP (YoY%)	3.8	4.3	6.0	4.4	-	
PPI (YoY%)	-1.7	-3.4	-2.3	-1.5	-0.2*	
Money Supply (YoY%)	9.39	9.94	13.08	12.24	11.93*	
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3	
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-	
5Y CDS (bps)	131.19	117.02	150.07	111.85*	-	
FDI (%GDP)	2.43	-	-	-	-	
Fiscal Budget (%GDP)	-0.80	-	-	-	-	



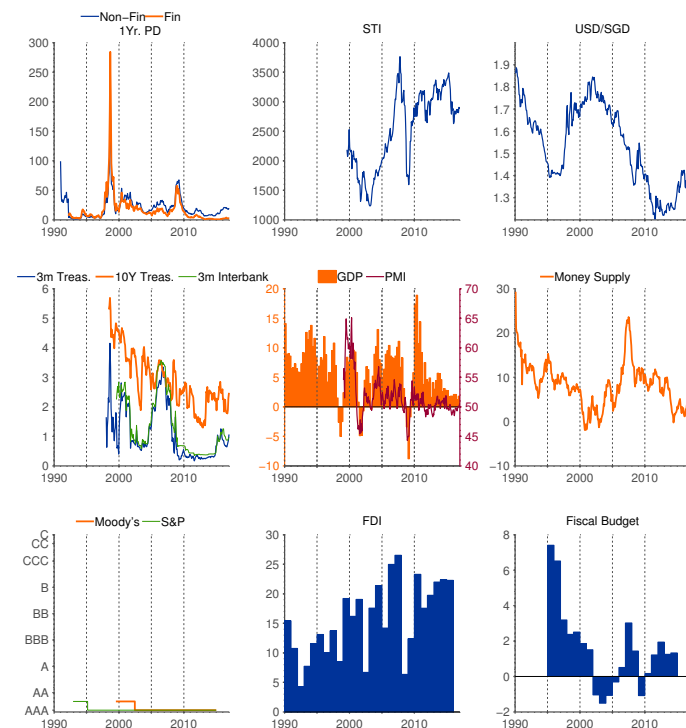
Russia	2015		2016			
	Q4	Q1	Q2	Q3	Q4	
1Yr. PD, Non-Fin. (bps)	74.07	51.74	42.93	41.51	33.45	
1Yr. PD, Fin.	99.03	97.06	79.21	58.57	54.16	
MICEX	1761	1871	1891	1978	2233	
USD/RUB	73.59	67.05	63.97	62.85	61.27	
3m Treas. Yield (%)	9.88	11.17	10.99	9.80	8.78	
10Y Treas. Yield (%)	-	-	-	3.79	4.46	
GDP (YoY%)	-3.8	-1.2	-0.6	-0.4	-	
OECD CLI	98.08	98.44	99.56	100.32	100.57*	
PMI	48.7	48.3	51.5	51.1	53.7	
PPI (YoY%)	10.7	0.8	5.1	5.1	4.3*	
Money Supply (YoY%)	11.30	11.80	12.20	12.70	11.20*	
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1	
Sov. Rating, S&P	BB+	BB+	BB+	BB+	BB+	
5Y CDS (bps)	308.97	283.19	232.87	219.66	231.35*	
FDI (%GDP)	0.49	-	-	-	-	
Fiscal Budget (%GDP)	-2.83	-	-	-	-	



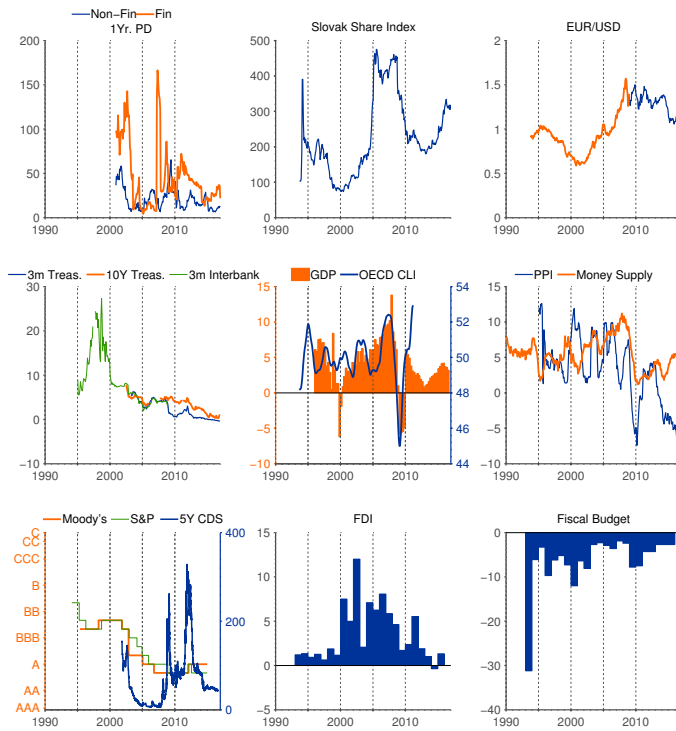
Saudi Arabia	2015		2016			
	Q4	Q1	Q2	Q3	Q4	
1Yr. PD, Non-Fin. (bps)	2.87	5.37	4.70	7.43	4.55	
1Yr. PD, Fin.	1.38	2.40	1.26	1.60	0.69	
TASI	6912	6223	6500	5623	7210	
USD/SAR	3.76	3.75	3.75	3.75	3.75	
3m Interbank (%)	1.55	1.80	2.22	2.36	2.04	
GDP (YoY%)	3.4	-	-	-	-	
PMI	54.4	54.5	54.4	55.3	55.5	
PPI (YoY%)	-1.4	2.7	4.0	3.7	-	
Money Supply (YoY%)	2.60	-0.40	-2.60	-4.00	0.10*	
Sov. Rating, Moody's	A1	A1	A1	A1	A1	
Sov. Rating, S&P	A-	A-	A-	A-	A-	
FDI (%GDP)	1.26	-	-	-	-	



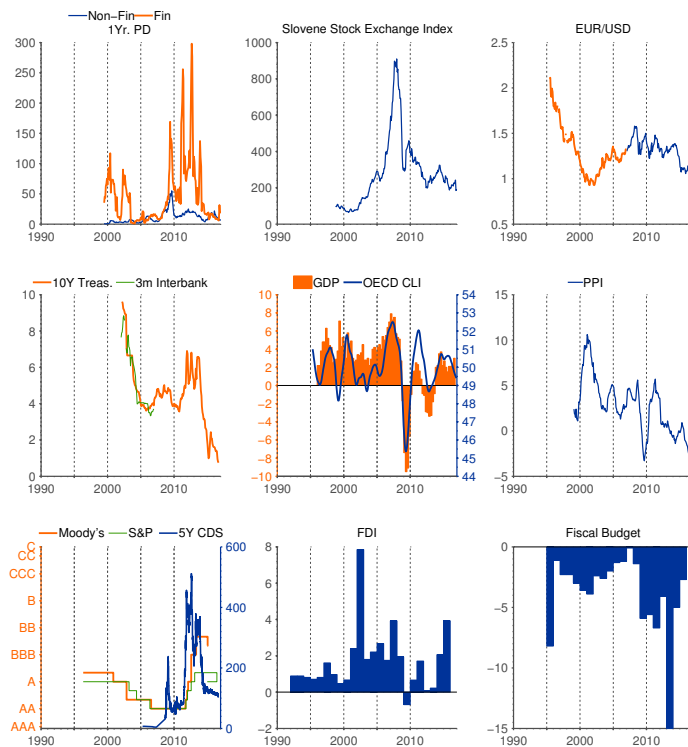
Serbia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	22.76	29.61	30.31	29.03	35.72
1Yr. PD, Fin.	63.74	56.34	51.59	26.10	39.72
Belgrade Stock Exchange	306	283	288	294	352
USD/RSD	111.89	107.89	111.02	109.49	117.29
GDP (YoY%)	1.1	3.8	1.9	2.6	-
PPI (YoY%)	0.7	-1.5	-1.6	0.2	2.2
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	6.31	-	-	-	-



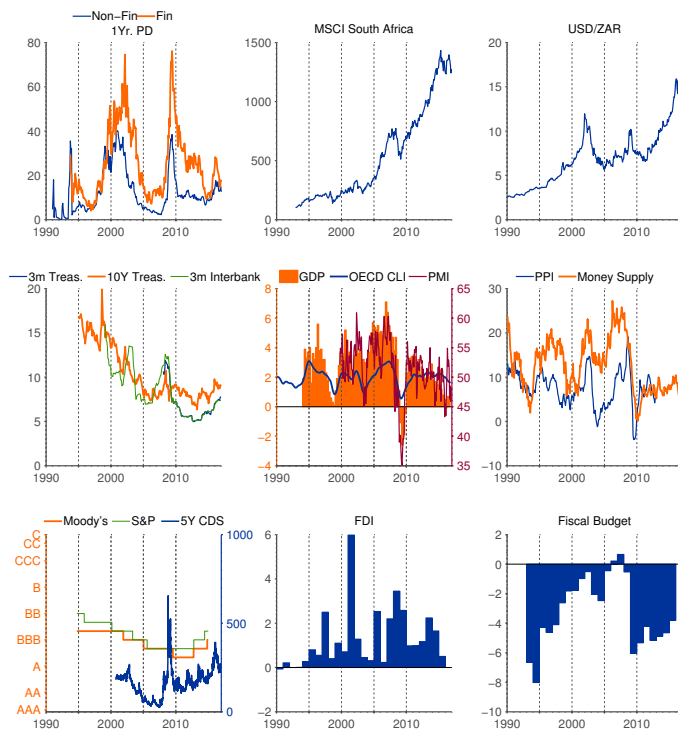
Singapore	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	17.15	20.83	19.59	18.58	19.20
1Yr. PD, Fin.	2.02	2.49	3.67	2.35	2.72
STI	2883	2841	2841	2869	2881
USD/SGD	1.42	1.35	1.35	1.36	1.45
3m Treas. Yield (%)	0.89	0.76	0.66	0.71	1.06
10Y Treas. Yield (%)	2.60	1.84	1.91	1.78	2.47
3m Interbank (%)	1.19	1.06	0.93	0.87	0.97
GDP (YoY%)	1.8	2.1	2.1	1.2	1.8
PMI	49.5	49.4	49.6	50.1	50.6
Money Supply (YoY%)	1.70	2.20	4.20	5.00	7.00*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	22.29	-	-	-	-



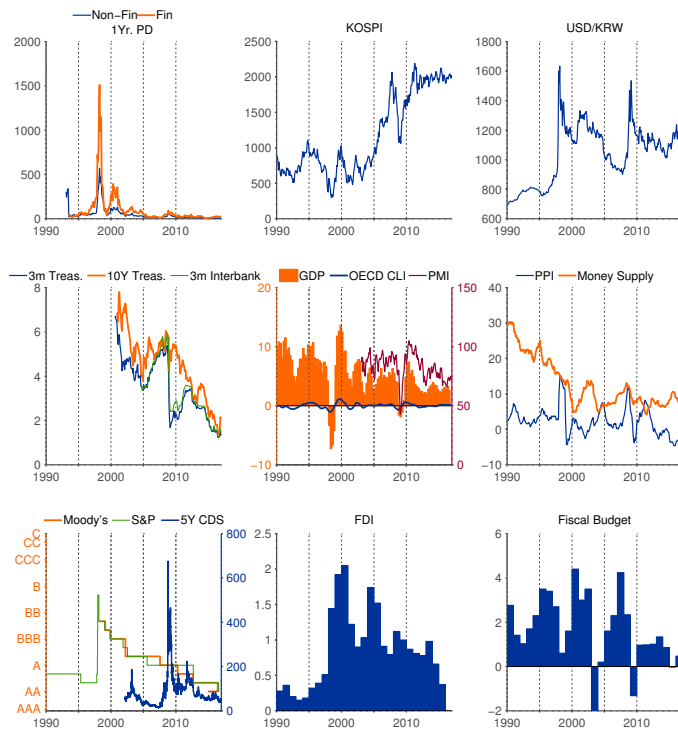
Slovakia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.64	6.48	10.50	12.56	12.55
1Yr. PD, Fin.	24.48	26.36	34.87	36.55	21.91
Slovak Share Index	292	325	313	309	319
EUR/USD	1.09	1.14	1.11	1.12	-
3m Treas. Yield (%)	-0.13	-0.17	-0.20	-0.29	-0.34
10Y Treas. Yield (%)	0.73	0.36	0.59	0.27	0.90
GDP (YoY%)	4.2	3.7	3.6	3.2	-
PPI (YoY%)	-4.5	-6.0	-4.5	-3.2	-2.6*
Money Supply (YoY%)	5.20	5.40	4.90	5.10	4.80*
Sov. Rating, Moody's	A2	A2	A2	A2	A2
Sov. Rating, S&P	A+	A+	A+	A+	A+
5Y CDS (bps)	48.49	45.56	43.91	44.21	-
FDI (%GDP)	1.32	-	-	-	-
Fiscal Budget (%GDP)	-2.70	-	-	-	-



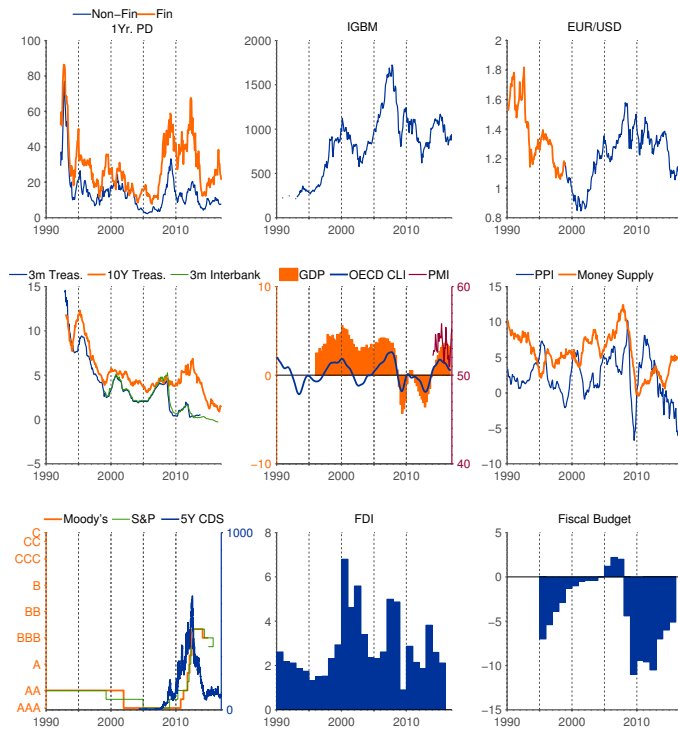
Slovenia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	12.95	15.53	10.79	7.30	7.58
1Yr. PD, Fin.	12.65	8.31	8.09	5.92	19.86
Slovene Stock Exchange Index	201	216	210	227	192
EUR/USD	1.09	1.14	1.11	1.12	-
10Y Treas. Yield (%)	1.61	1.48	1.36	0.75	-
GDP (YoY%)	2.1	2.1	2.2	3.0	-
OECD CLI	100.49	100.21	99.87	99.57	99.40*
PPI (YoY%)	-1.4	-2.2	-2.0	-0.9	-0.2*
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	A	A	A	A	A
5Y CDS (bps)	113.95	115.22	115.14	102.37*	-
FDI (%GDP)	3.93	-	-	-	-
Fiscal Budget (%GDP)	-2.70	-	-	-	-



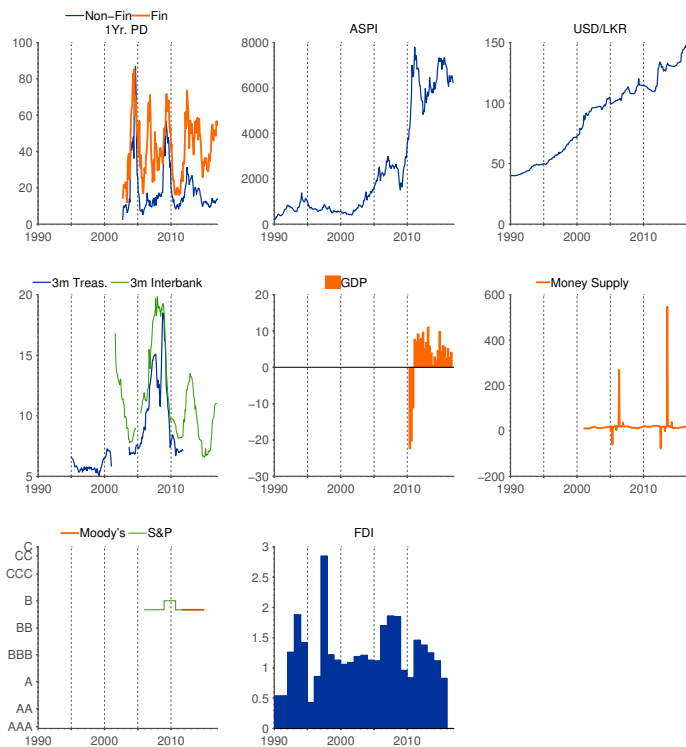
South Africa	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	13.92	15.67	17.04	13.09	12.57
1Yr. PD, Fin.	24.18	27.58	21.73	15.33	17.26
MSCI South Africa	1256	1347	1355	1343	1276
USD/ZAR	15.47	14.77	14.73	13.72	13.74
3m Treas. Yield (%)	7.01	7.24	7.35	7.36	7.79
10Y Treas. Yield (%)	9.78	9.18	8.90	8.73	9.02
3m Interbank (%)	6.63	7.23	7.36	7.36	7.36
GDP (YoY%)	0.5	-0.1	0.7	0.7	-
OECD CLI	99.96	99.63	99.25	99.12	99.12*
PMI	45.5	50.5	52.9	48.5	48.3*
Money Supply (YoY%)	10.46	8.74	5.58	5.64	4.76*
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
5Y CDS (bps)	335.84	298.90	281.04	256.33	255.67*
FDI (%GDP)	0.50	-	-	-	-
Fiscal Budget (%GDP)	-3.81	-	-	-	-



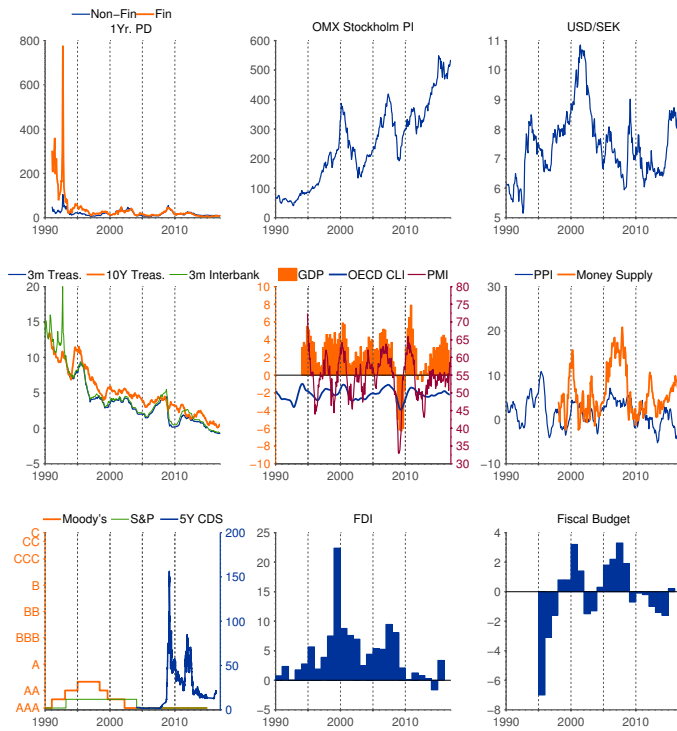
South Korea	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	8.95	8.35	8.08	6.18	6.58
1Yr. PD, Fin.	22.18	23.48	25.93	20.02	26.82
KOSPI	1961	1996	1970	2044	2026
USD/KRW	1175.06	1143.42	1151.80	1101.13	1205.83
3m Treas. Yield (%)	1.55	1.50	1.27	1.26	1.32
10Y Treas. Yield (%)	2.09	1.79	1.47	1.42	2.09
3m Interbank (%)	1.66	1.56	1.30	1.32	1.47
GDP (YoY%)	3.1	2.8	3.3	2.6	-
OECD CLI	100.71	100.71	100.77	100.82	100.77*
PMI	69.0	66.0	74.0	74.0	72.0
PPI (YoY%)	-4.0	-3.3	-2.7	-1.1	0.7*
Money Supply (YoY%)	8.90	8.60	7.90	7.80	8.10*
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
Sov. Rating, S&P	AA	AA	AA	AA	AA
5Y CDS (bps)	56.56	64.00	56.13	41.84	44.00
FDI (%GDP)	0.37	-	-	-	-
Fiscal Budget (%GDP)	-0.03	-	-	-	0.47



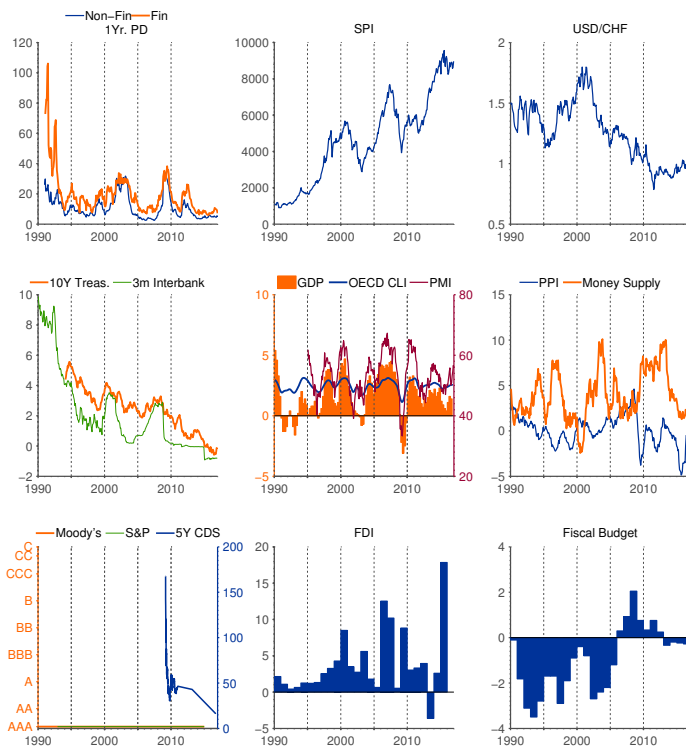
Spain	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.37	9.76	10.24	7.43	7.57
1Yr. PD, Fin.	24.16	26.98	32.84	30.40	21.34
IGBM	965	880	821	884	944
EUR/USD	1.09	1.14	1.11	1.12	-
10Y Treas. Yield (%)	1.77	1.44	1.16	0.88	1.38
3m Interbank (%)	-0.13	-0.24	-0.29	-0.29*	-
GDP (YoY%)	3.6	3.4	3.4	3.2	-
OECD CLI	101.35	101.08	100.73	100.57	100.60*
PMI	53.0	53.4	52.2	52.3	55.3
PPI (YoY%)	-2.2	-5.4	-4.5	-2.0	0.6*
Money Supply (YoY%)	4.60	5.00	4.90	-	-
Sov. Rating, Moody's	Baa2	Baa2	Baa2	Baa2	Baa2
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	89.88	94.56	111.30	83.61	75.62
FDI (%GDP)	2.11	-	-	-	-
Fiscal Budget (%GDP)	-5.10	-	-	-	-



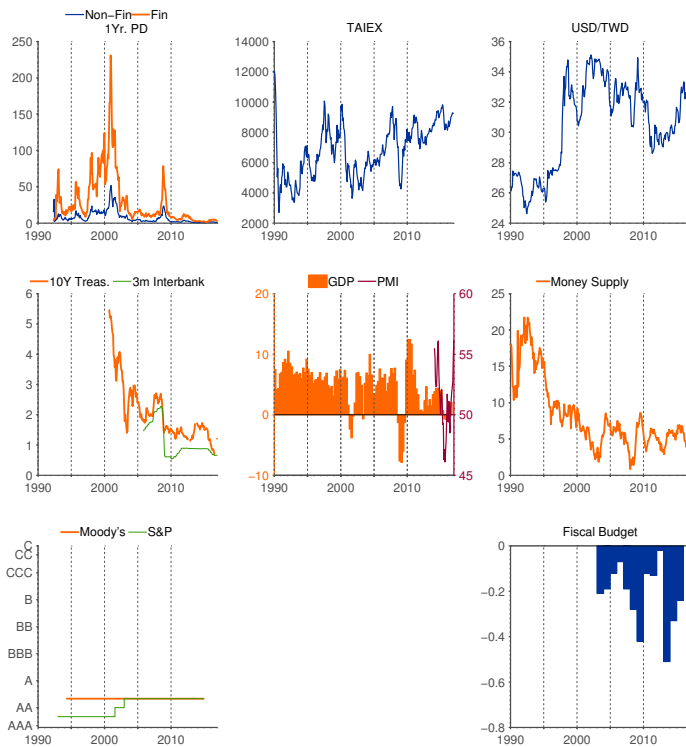
Sri Lanka	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.97	14.03	12.90	12.92	13.53
1Yr. PD, Fin.	39.68	54.87	51.69	48.63	56.96
ASPI	6895	6072	6283	6535	6228
USD/LKR	144.25	146.05	145.70	146.67	149.71
3m Interbank (%)	7.18	9.33	9.88	11.00	11.01
GDP (YoY%)	2.5	5.2	2.7	4.1	-
Money Supply (YoY%)	17.20	18.40	17.20	-	-
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	B+	B+	B+	B+	B+
FDI (%GDP)	0.83	-	-	-	-



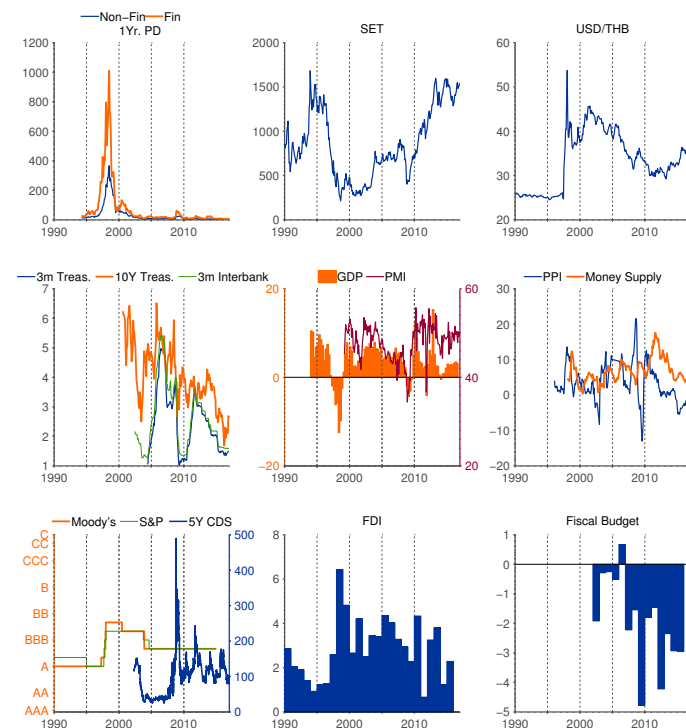
Sweden	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.38	10.38	10.53	9.35	8.87
1Yr. PD, Fin.	5.26	9.02	8.84	6.83	7.55
OMX Stockholm PI	505	483	471	518	535
USD/SEK	8.44	8.12	8.46	8.57	9.11
3m Treas. Yield (%)	-0.45	-0.61	-0.65	-0.75	-0.80
10Y Treas. Yield (%)	1.00	0.53	0.26	0.17	0.56
3m Interbank (%)	-0.29	-0.45	-0.53	-0.51	-0.59
GDP (YoY%)	4.5	4.2	3.6	2.8	-
OECD CLI	100.50	100.25	99.84	99.55	99.52*
PMI	55.8	53.3	53.0	55.0	60.1
PPI (YoY%)	-1.9	-3.7	-1.9	-0.1	3.6*
Money Supply (YoY%)	7.64	8.68	6.72	8.69	8.63*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	13.31	17.57	21.03*	-	-
FDI (%GDP)	3.37	-	-	-	-
Fiscal Budget (%GDP)	0.20	-	-	-	-



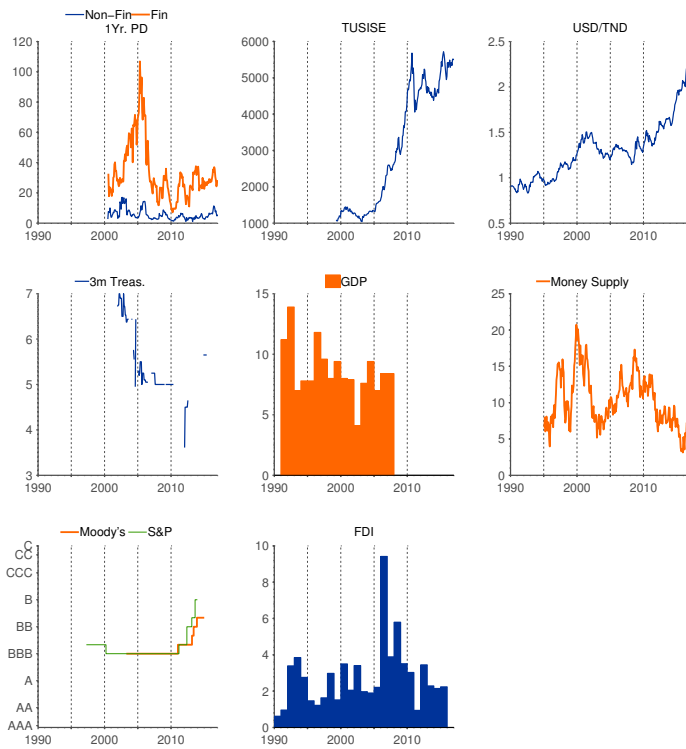
Switzerland	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	5.03	4.76	5.43	4.56	4.89
1Yr. PD, Fin.	7.02	7.09	9.42	9.79	7.14
SPI	9094	8317	8660	8883	8966
USD/CHF	1.00	0.96	0.98	0.97	1.02
10Y Treas. Yield (%)	-0.06	-0.34	-0.57	-0.55	-0.19
3m Interbank (%)	-0.82	-0.79	-0.84	-0.81	-0.79
GDP (YoY%)	0.4	1.1	1.6	1.4	-
OECD CLI	99.51	99.81	100.13	100.19	100.14*
PMI	50.4	53.2	51.6	53.2	56.0
PPI (YoY%)	-3.6	-3.5	-0.6	0.0	-0.5*
Money Supply (YoY%)	1.63	1.71	2.31	2.90	2.00*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	-	-	-	17.01	-
FDI (%GDP)	17.85	-	-	-	-
Fiscal Budget (%GDP)	-0.24	-	-	-	-0.28



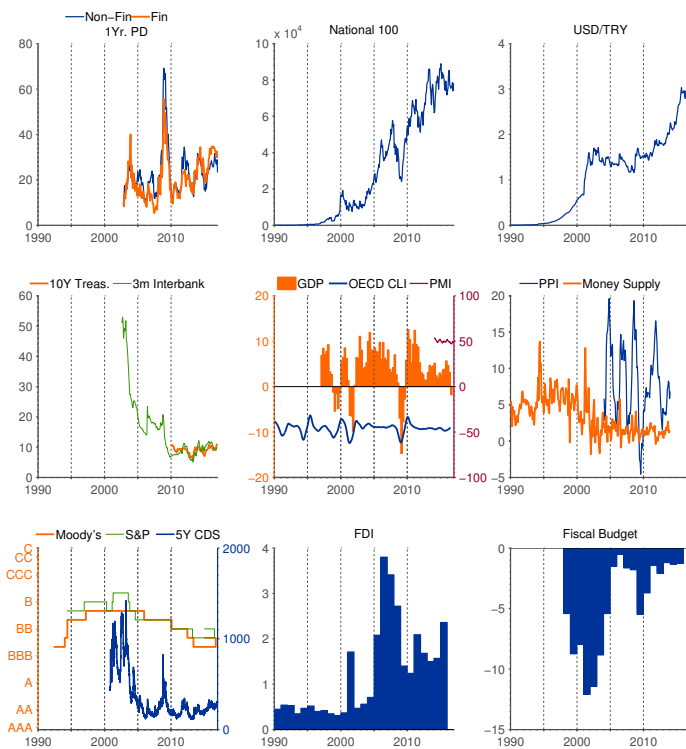
Taiwan	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	1.56	1.55	1.40	0.95	0.83
1Yr. PD, Fin.	3.61	4.85	4.97	3.79	2.83
TAIEX	8338	8745	8667	9167	9254
USD/TWD	32.86	32.21	32.26	31.36	32.33
10Y Treas. Yield (%)	1.03	0.84	0.77	0.69*	1.22
3m Interbank (%)	0.75	0.69	0.69	0.66	0.66
GDP (YoY%)	-0.8	-0.2	1.1	2.0	-
PMI	51.7	51.1	50.5	52.2	56.2
Money Supply (YoY%)	5.80	4.70	4.65	3.98	3.77*
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
Fiscal Budget (%GDP)	-0.24	-	-	-	-



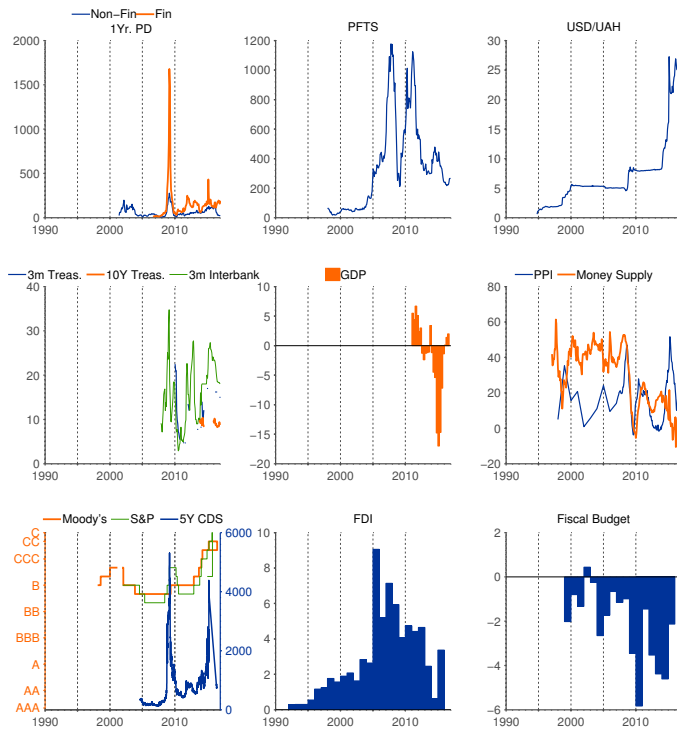
Thailand	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	3.96	3.78	3.34	2.81	2.45
1Yr. PD, Fin.	7.02	6.08	7.60	7.28	6.65
SET	1288	1408	1445	1483	1543
USD/THB	36.03	35.13	35.12	34.59	35.84
3m Treas. Yield (%)	1.50	1.38	1.36	1.45	1.50
10Y Treas. Yield (%)	2.50	1.69	1.95	2.10	2.65
3m Interbank (%)	1.63	1.60	1.59	1.59	1.59
GDP (YoY%)	2.8	3.2	3.5	3.2	-
PMI	49.9	51.5	50.4	50.3	50.3
PPI (YoY%)	-2.7	-2.4	-1.4	-0.7	1.1
Money Supply (YoY%)	4.42	3.75	4.29	3.93	4.40*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	136.84	131.34	114.50	86.68	81.59
FDI (%GDP)	2.28	-	-	-	-
Fiscal Budget (%GDP)	-2.95	-	-	-	-



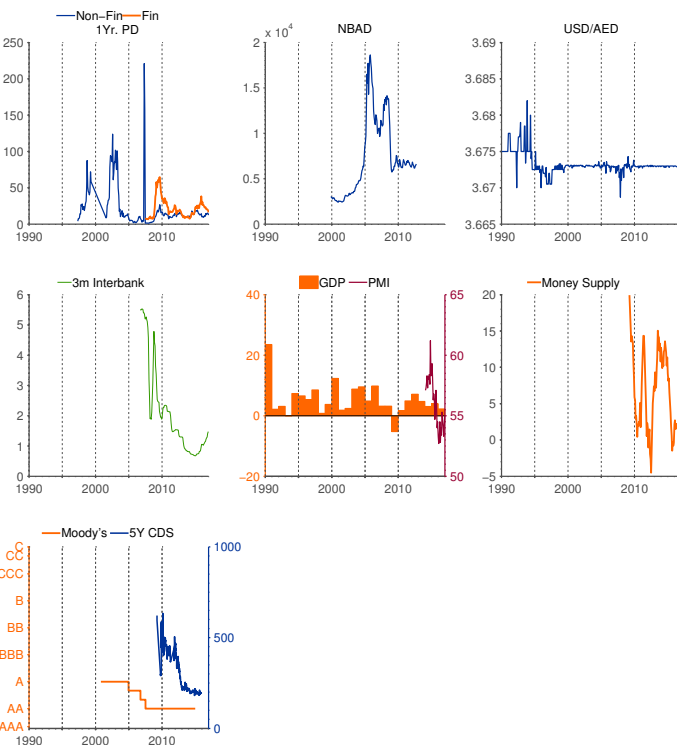
Tunisia	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	6.13	6.05	11.08	8.18	5.54
1Yr. PD, Fin.	27.29	31.70	36.98	28.63	28.44
TUSISE	5042	5421	5290	5342	5489
USD/TND	2.04	2.02	2.20	2.20	2.32
Money Supply (YoY%)	5.27	5.81	7.24	7.56	8.76*
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba3	Ba3
FDI (%GDP)	2.24	-	-	-	-



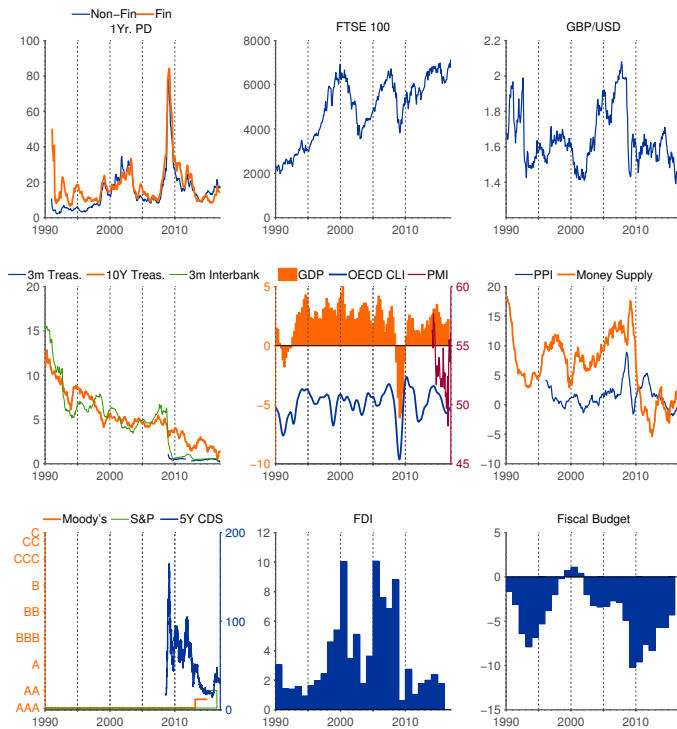
Turkey	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	27.09	25.84	28.69	27.69	23.25
1Yr. PD, Fin.	31.31	34.08	34.02	32.21	29.77
National 100	71727	83268	76817	76488	78139
USD/TRY	2.93	2.82	2.88	3.00	3.52
10Y Treas. Yield (%)	10.46	9.71	9.03	9.52	11.08
3m Interbank (%)	11.47	11.07	9.50	8.91	9.90
GDP (YoY%)	5.7	4.7	3.1	-1.8	-
OECD CLI	2.09	3.29	4.83	-	-
PMI	52.2	49.2	47.4	48.3	47.7
Sov. Rating, Moody's	Ba1	Ba1	Ba1	Ba1	Ba1
Sov. Rating, S&P	BB	BB	BB	BB	BB
5Y CDS (bps)	273.56	254.58	242.87	261.62	273.17
FDI (%GDP)	2.36	-	-	-	-
Fiscal Budget (%GDP)	-1.24	-	-	-	-



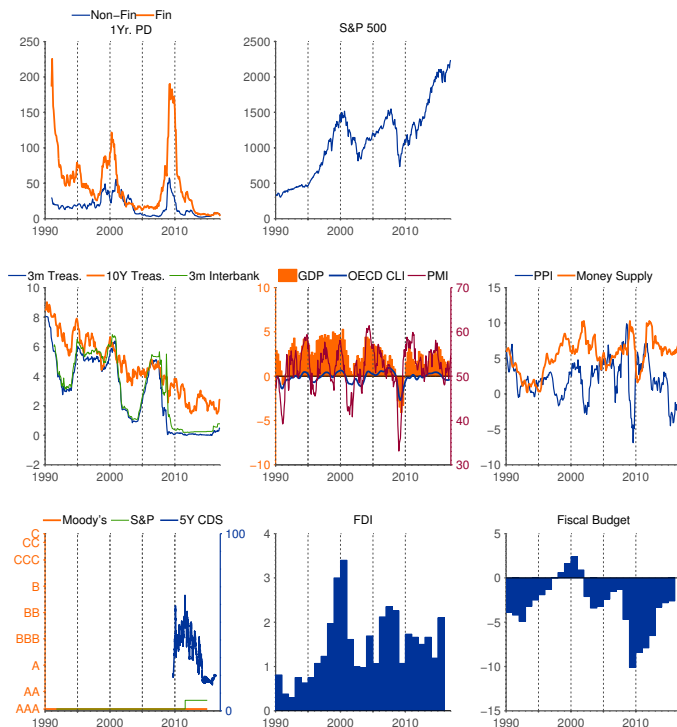
Ukraine	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	101.40	174.86	52.55	26.35	22.25
1Yr. PD, Fin.	114.16	140.53	112.36*	193.70	191.29
PFTS	241	226	223	240	265
USD/UAH	24.03	26.20	24.83	25.93	27.30
3m Treas. Yield (%)	-	-	16.20	-	15.00
10Y Treas. Yield (%)	9.75	9.54	8.50	8.56	8.76
3m Interbank (%)	23.75	23.00	19.58	18.33	18.00
GDP (YoY%)	-1.4	0.1	1.4	2.0	-
PPI (YoY%)	25.4	10.5	15.7	19.6	35.7
Money Supply (YoY%)	3.90	-1.70	6.20	12.60	7.70*
Sov. Rating, Moody's	Caa3	Caa3	Caa3	Caa3	Caa3
Sov. Rating, S&P	B-	B-	B-	B-	B-
5Y CDS (bps)	-	-	761.68	757.10*	-
FDI (%GDP)	3.37	-	-	-	-
Fiscal Budget (%GDP)	-2.13	-	-	-	-



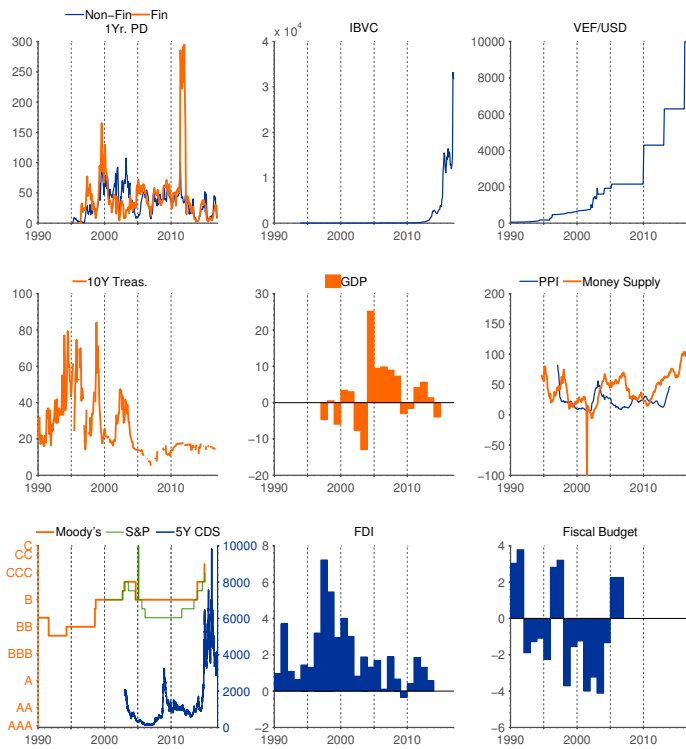
United Arab Emirates	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.98	9.31	10.74	14.07	12.45
1Yr. PD, Fin.	26.98	26.44	23.29	20.57	16.23
USD/AED	3.67	3.67	3.67	3.67	3.67
3m Interbank (%)	1.05	1.03	1.13	1.27	1.48
GDP (YoY%)	4.0	-	-	-	2.3
PMI	53.3	54.5	53.4	54.1	55.0
Money Supply (YoY%)	2.15	2.07	2.03	3.52	4.02*
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	Aa2
5Y CDS (bps)	197.92*	-	-	-	-



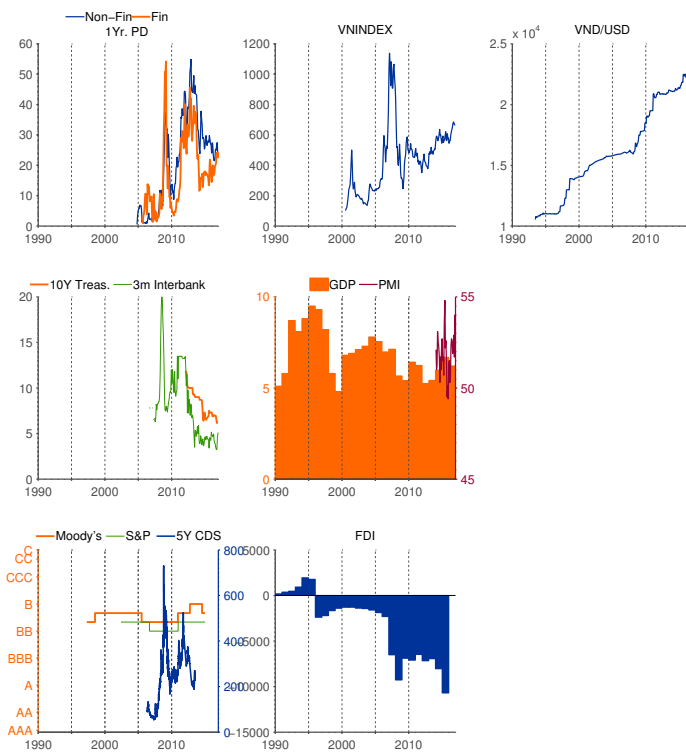
United Kingdom	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	14.58	17.06	21.53	16.70	16.54
1Yr. PD, Fin.	9.77	13.28	18.12	15.09	14.48
FTSE 100	6242	6175	6504	6899	7143
GBP/USD	1.47	1.44	1.33	1.30	1.23
3m Treas. Yield (%)	0.55	0.51	0.46	0.32	0.16
10Y Treas. Yield (%)	1.96	1.42	0.87	0.75	1.24
3m Interbank (%)	0.59	0.59	0.56	0.38	0.37
GDP (YoY%)	1.7	1.8	2.0	2.2	-
OECD CLI	99.57	99.31	99.31	99.63	99.77*
PMI	51.4	51.0	52.4	55.5	56.1
PPI (YoY%)	-1.4	-0.7	-0.2	1.2	2.3*
Money Supply (YoY%)	0.30	1.50	3.60	6.20	6.40*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA	AA	AA	AA	AA
5Y CDS (bps)	19.11	38.81	43.25	32.45	30.73
FDI (%GDP)	1.76	-	-	-	-
Fiscal Budget (%GDP)	-4.30	-	-	-	-



United States	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	6.83	8.48	8.77	6.93	5.96
1Yr. PD, Fin.	5.92	8.18	8.35	7.21	3.95
S&P 500	2044	2060	2099	2168	2239
3m Treas. Yield (%)	0.16	0.20	0.26	0.27	0.50
10Y Treas. Yield (%)	2.27	1.77	1.47	1.59	2.44
3m Interbank (%)	0.63	0.57	0.55	0.78	0.78
GDP (YoY%)	1.9	1.6	1.3	1.7	-
OECD CLI	99.30	99.14	99.12	99.19	99.27*
PMI	48.0	51.8	53.2	51.5	54.7
PPI (YoY%)	-2.7	-2.3	-2.0	-0.1	0.5*
Money Supply (YoY%)	5.70	6.20	6.90	7.40	7.80*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
5Y CDS (bps)	17.56	19.83	19.89*	-	-
FDI (%GDP)	2.10	-	-	-	-
Fiscal Budget (%GDP)	-2.60	-	-	-	-



Venezuela	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	10.77	13.88	45.20	24.77	9.64
1Yr. PD, Fin.	7.60	9.47	21.56	26.48	8.02
IBVC	14588	14575	12851	12961	31705
VEF/USD	6292.10	9987.50	9987.50	9987.50	9987.50
10Y Treas. Yield (%)	15.65	15.49	14.77	14.62	-
Money Supply (YoY%)	97.70	103.40	96.40	113.30	158.80
Sov. Rating, Moody's	Caa3	Caa3	Caa3	Caa3	Caa3
Sov. Rating, S&P	CCC	CCC	CCC	CCC	CCC
5Y CDS (bps)	4867.88	5180.28	3892.00	2946.27	3749.67



Vietnam	2015		2016		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	24.01	23.33	22.09	26.53	22.81
1Yr. PD, Fin.	14.48	16.55	19.56	24.13	22.36
VNINDEX	579	561	632	686	665
VND/USD	22485.00	22293.00	22304.00	22296.00	22761.00
10Y Treas. Yield (%)	7.30	6.90	6.94	6.50	6.20
3m Interbank (%)	5.15	4.65	3.95	3.25	5.10
GDP (YoY%)	6.7	-	-	-	6.2
PMI	51.3	50.7	52.6	52.9	52.4
Sov. Rating, Moody's	B1	B1	B1	B1	B1
Sov. Rating, S&P	BB-	BB-	BB-	BB-	BB-
FDI (%GDP)	-10700.00	-	-	-	-

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 January 2017 and every effort has been made to verify its accuracy.

The last section of this Appendix describes the Probability of Default implied Rating (PDiR). The PDiR has been introduced to aid intuition about PD values for individual companies.

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](#).[†]

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

[†]The RMI CRI model uses Germany's three-month Bubbill 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.

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](#).

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](#).

PDiR

The Probability of Default implied Rating (PDiR) has been introduced to aid intuition about what different values of 1-year PD from RMI-CRI’s default forecast model imply about a firm’s credit quality. In short, the 1-year PD for a firm is used to imply a credit rating based on historically observed default rates for credit rating agency ratings.

The table at right classifies firms into S&P-equivalent PDiR based on their 1-year PD. For example, if a firm has a 1-year PD of 50bps, then it will be assigned an S&P-equivalent rating of BB. The upper bounds for each PDiR are derived using default and rating transition data provided by credit rating agencies to the European Securities and Markets Authority (ESMA) Central Ratings Repository.[†] RMI-CRI uses this data to compute issuer-weighted 1-year average default rates (ADR) for each ratings cohort, using ratings data from 2006-2015.

PDiR	Upper bound (bps)
AAA	0.16
AA	2.39
A	9.28
BBB	35.95
BB	139
B	539
CCC/C	–

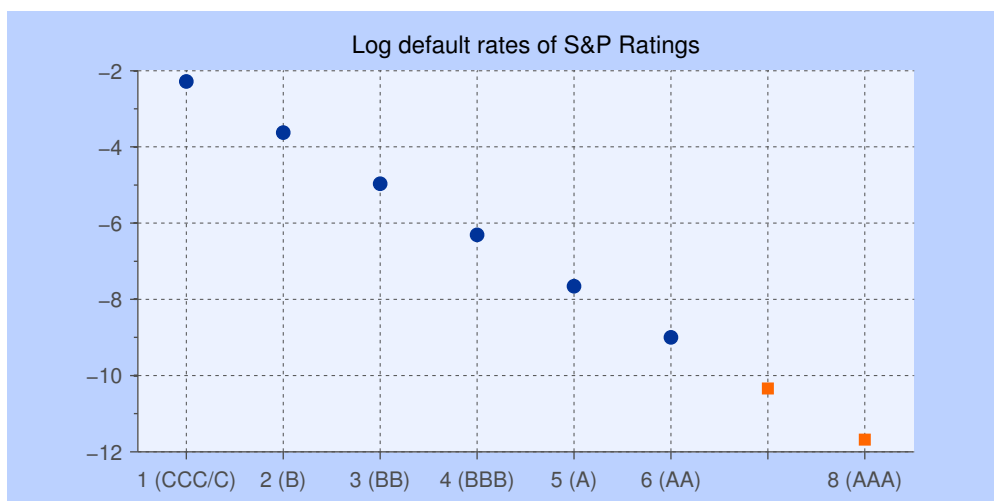
Computing the boundaries between different PDiR classes: The blue circles in the graph below indicate the logarithm of the observed ADR for firms rated by S&P with ratings from AA down to CCC/C.

Given the linear relationship between the observed log default rates and the ratings, we interpolate the log default rate for each rating notch from this result by plotting a line of best fit through the observed points. We then take the boundary between PDiR classes as the mid-point of the interpolated log default rates.

For example, the upper bound for BBB is computed as:

$$UB(BBB) = \exp\left(\frac{\log(ADR(BBB)) + \log(ADR(BB))}{2}\right).$$

For the upper boundary for AAA firms, a mid-point of observed log ADR cannot be taken as the ADR is zero for S&P rated AAA firms. Instead, a line of best fit can be plotted through the six observed points for the other rating classes in order to extrapolate the orange squares. However, taking the default rate based on the first extrapolated orange square results in a boundary that leads to a far larger fraction of PDiR-rated AAA firms as compared to actual rated AAA firms. Thus, the boundary between AA and AAA is taken as the mid-point between the first and second orange square.



[†]Central Ratings Repository, European Securities and Markets Authority (ESMA).

About RMI and the Credit Research Initiative

The NUS Risk Management Institute (RMI) was established in August 2006 as a research institute at NUS dedicated to the area of financial risk management. The establishment of RMI was supported by the Monetary Authority of Singapore (MAS) under its program on Risk Management and Financial Innovation. RMI seeks to complement, support and develop Singapore's financial sector's knowledge and expertise in risk management, and thereby help to take on the challenges arising from globalization, structural change and volatile financial markets.

Credit Research Initiative (CRI) is a non-profit project undertaken by NUS-RMI in response to the 2008-2009 GFC. The CRI takes a "public good" approach to credit ratings by providing the outputs from our default forecast system in a transparent, non-profit basis. In the current phase, the CRI model generates probabilities of default (PD) on a daily basis for corporate entities in 119 economies in Africa, Asia-Pacific, Europe, Latin America, the Middle East and North America. Our PD can serve as a benchmark against traditional rating agencies' systems or internal credit analyses for industry analysts and business professionals. For more information about RMI and the CRI project, please visit our main site at <http://rmicri.org>

Usage, redistribution and publication of data

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