
Quarterly Credit Report

Q1/2012

Volume 1, No 4



Introduction

The Quarterly Credit Report (QCR) is an analysis of credit outlooks across regions, economies and sectors based on the probabilities of default (PD) generated by the Risk Management Institute's (RMI) default forecast model. The objective of the QCR is to provide insights on trends in credit outlook to credit professionals, investors and researchers.

This fourth issue covers the first quarter of 2012. The QCR commentary is divided into four regions: the developed economies of Asia-Pacific; the emerging economies of Asia-Pacific; North America and Western Europe. For each region we discuss the general credit outlook based on relevant indicators and relate them to RMI's default forecasts. Important and noteworthy economies and sectors within each region are discussed in greater detail.

The appendices in this volume include a comprehensive overview of various outputs that are produced by the operational PD system of RMI. While the PD system outputs default forecasts at horizons ranging from one month to two years, the QCR reports only one year PDs in order to allow the reader to make consistent comparisons. In addition to the PD produced by the RMI 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 equally weighted averages of the 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 the current coverage of RMI's default forecast model. The developed economies of Asia-Pacific include: Australia, Hong Kong, Japan, Singapore, South Korea and Taiwan. The emerging economies of Asia-Pacific include: China, India, Indonesia, Malaysia, Philippines and Thailand. North America includes: Canada and the US. Western Europe includes: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the UK.

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 the CRI's operational PD system, which is accessible at:

www.rmi.nus.edu.sg/cri

As of this issue of the QCR, the PD system covers 30 economies in Asia-Pacific, North America and Western Europe. The probabilities of default for nearly 50,000 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 mis-use the data. General users who do not request

global access are restricted to a list of 2,200 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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List of Terms

Key

- + Credit positive implications.
- Credit negative implications.
- * Both credit positive and credit negative implications.

Acronyms

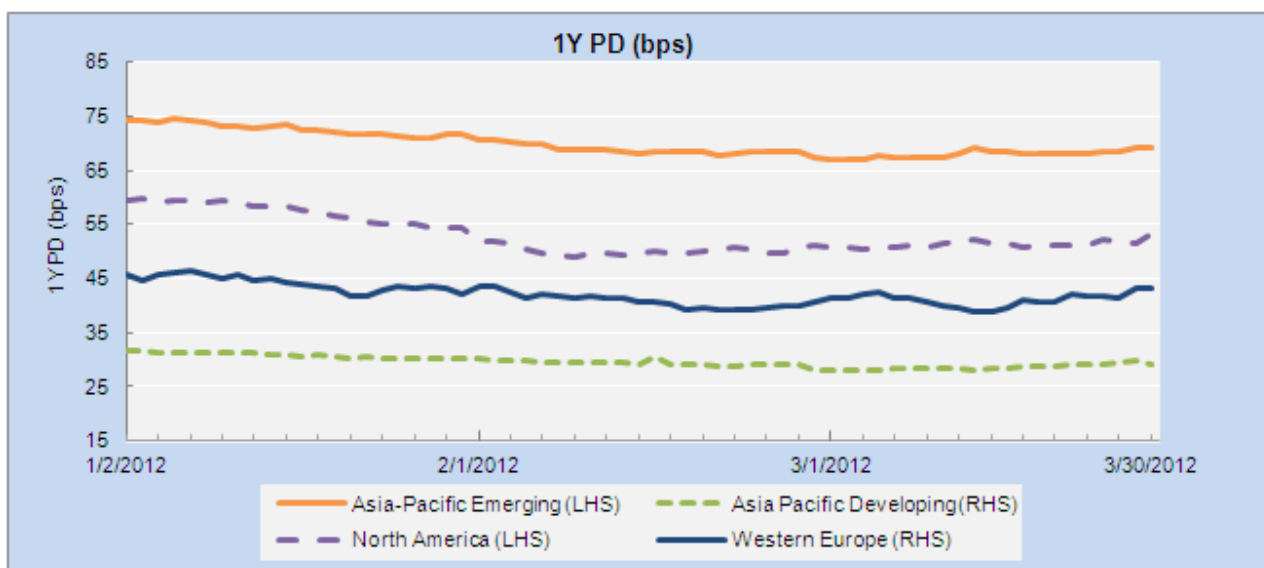
BOC	Bank of China
BOE	The Bank of England
CCB	China Construction Bank
CRR	Cash Reserve Ratio
EBA	European Banking Authority
EFSF	European Financial Stability Fund
ESM	European Stability Mechanism
EU	European Union
GFC	2007-2010 Global Financial Crisis
ICBC	Industrial & Commercial Bank of China
LTRO	Long term refinancing operation
MAS	Monetary Authority of Singapore
MRO	Main refinancing operation
NPL	Non-performing loan
PBOC	The Peoples Bank of China
PMI	Purchasing Managers Index
RBI	Reserve Bank of India
RRR	Reserve requirement ratio
VAT	Value added tax

Definitions

Marginal Lending In the European Union, marginal lending is the practice of providing overnight liquidity to banks through the European Central Bank.

Global Overview

Q1 2012 witnessed several events which led to a resumption of risk taking by investors across global capital markets. Central banks in major developed economies maintained easy monetary policies, while central banks in inflation-stricken economies started to ease their monetary stances. The second Greek bailout temporarily boosted hope for a resolution of the European debt crisis. These factors led to a 10% rebound in the MSCI ACWI index for emerging and developed world markets, as well as a 33bps rise in the yield of US ten-year government bonds.



However, risks remain in the global economy and financial system. Based on RMI CRI's default forecast model, the one-year PD for companies in the regions of North America, Asia Developed, Asia Emerging, and Europe continued to be elevated compared to their respective lows in 2011. In spite of having slightly eased during Q1, the elevated PD levels indicate that regional credit outlooks remain unfavorable.

A number of factors contribute to the negative credit outlook in these regions. Firstly, the economic fundamentals of major world economies continue to be in a fragile state. In Europe, the economic outlook remains bleak, as a continuing deterioration in the public finances of crisis-stricken countries continues to afflict investor and economic sentiments. In the US, a firm economic recovery remains elusive: the unemployment rate remains high and a solid recovery in the housing market has yet to gain footing. Consequently, a robust rebound in consumer and business demand in Western Europe and North America remains remote, adding to the risks for producer economies, typically those in emerging Asia. A negative knock-on effect from this in the current inter-connected global economy includes a dampening in demand for commodities, which hurts commodity reliant economies such as Australia and Canada.

The second risk factor weighing on the credit outlook for the aforementioned regions is a lack of sufficient bank lending support to the real economy. Banks based in Europe have been under regulatory pressure to deleverage and reduce certain lending activities. This problem could become more severe as the chance of a re-escalation in the European debt crisis increases. Politicians from some European countries have called for a toughening of bank capital rules above the Basel III standards. Deleveraging by European banks could significantly impact financing and economic conditions in Asia, at a time when the level of

credit rationing by domestic banks remained high in a number of Asian countries, such as China and India.

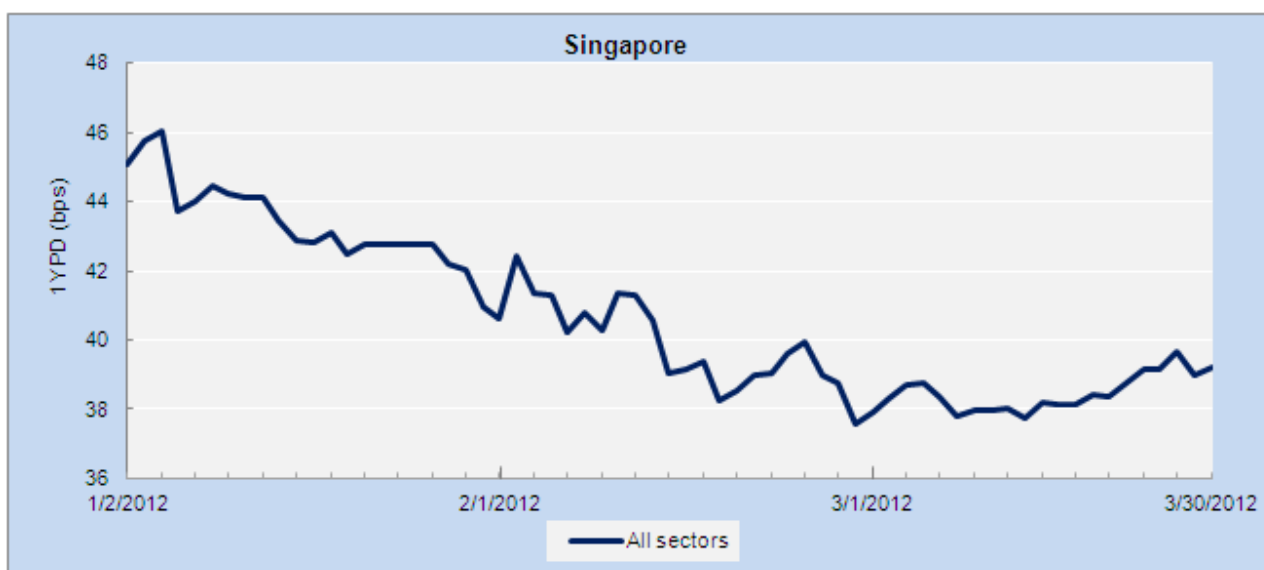
The third risk factor is inflationary pressures. Concerns amongst central banks regarding inflationary pressures could dampen their enthusiasm in further easing their monetary policies. Stubbornly high levels of inflation are still plaguing major developed and emerging economies, despite a wide economic slowdown and previous monetary tightening in emerging countries. Adding to the risk of a global inflation outlook is the upward pressure on crude oil prices resulting from the current political tension with Iran.

Notwithstanding these risks, positive developments emerged in Q1 on a number of fronts, providing uplift to the credit outlook for North America, Europe and Asia. Fueled by bank deleveraging and aided by a return in investor risk appetite as the European sovereign debt crisis eased temporarily, companies across the globe have substantially increased their use of capital market financing. This has to some extent eased funding pressures for companies that have traditionally relied heavily upon bank loans. Meanwhile, authorities throughout the four regions have begun weighing measures to cushion the real economy from any adverse impact stemming from incoming banking regulations. A current example is changes to draft Basel III liquidity rules that are being considered by the Basel Committee on Banking Supervision. The changes were proposed to address the concern that banks could be under pressure to hoard cash and invest in government securities instead of lending. However, whether these positive impacts are able to sufficiently counter the outlined negative factors remains an open question. The credit outlook for all four country groupings remains negative.

Asia-Pacific - developed economy

Singaporean Companies

- In Q1, the one-year aggregate PD for Singaporean companies fell marginally to 42bps, remaining above a post GFC low of 26bps recorded in January 2011.
- During Q1, the Singaporean economy rebounded, achieving an annualized GDP growth of 9.9%. Going forward, the liquidity outlook is favourable, due to strong bank lending and a boost to the SGD denominated corporate bond market. However, a few factors could weigh upon the credit outlook of Singaporean firms: sluggish overseas demand, and government curbs on the hiring of foreign workers.



Economy

- In Q1, the performance of Singapore's non-oil domestic exports indicated that the export-reliant economy continued to face headwinds despite a temporary easing of the European debt crisis. Although non-oil domestic exports expanded 30.5% in February YoY, due to the effect of the Chinese Lunar New Year Holidays,¹ the measure experienced a 2.1% YoY decline in January and a 4.3% YoY decline in March.^{2, 3} China's slowing economy has a knock-on negative effect on Singapore's export-reliant economy. Although exports to Europe and the US recovered slightly in March,⁴ the ongoing European debt crisis, and a still fragile US economic recovery are additional risks that weigh on Singapore's economic outlook.

Liquidity

- + On March 14, the MAS unveiled measures to boost liquidity in the Singapore dollar-denominated corporate bond market. These are prudent steps to address possible funding gaps in trade financing left by deleveraging European banks, which might not be filled by Asian banks due to insufficient lending capacity and a more selective approach to risk.⁵

- + Total bank lending increased in each month of Q1, with the same measure increasing 26% year-on-year in March.⁶ The retreat by European banks from Asian markets, particularly from trade finance activities, has in part contributed to an increase in Singapore dollar denominated loans.

Policy

- Singaporean companies are facing upward cost pressures, following a February announcement by the government that measures will be taken to reduce Singaporean companies' reliance on low-cost foreign workers. The Dependency Ratio Ceilings (DRC) for the manufacturing and service sectors will be reduced by 5% to 60% and 45% respectively from July 1 2012.⁷ The DRC refers to the maximum permitted ratio of foreign workers to the total workforce that a company in the stipulated sector is allowed to hire.⁸

¹Mar 16, 2012, [Singapore February Exports Surge 30.5% on Pharmaceuticals](#), Bloomberg.

²Feb 17, 2012, [Singapore Exports Drop Adds to Signs of European Crisis Fallout: Economy](#), Bloomberg.

³Apr 17, 2012, [Singapore Exports Unexpectedly Fall](#), The Wall Street Journal.

⁴Apr 16, 2012, [Singapore March exports fall but recovery on track](#), Reuters.

⁵Mar 14, 2012, [Singapore take steps to boost corp bond liquidity](#), Reuters.

⁶2012, [Glossary of Terms](#), Ministry of Manpower, Singapore, <http://www.mom.gov.sg>

⁷Feb 17, 2012, [Singapore to slow growth of its foreign workforce: Tharman](#), Asiaone Business.

⁸2012, [Glossary of Terms](#), Ministry of Manpower, Singapore, <http://www.mom.gov.sg>

Asia-Pacific - emerging economies

Chinese Companies

- The one-year aggregate PD for Chinese companies exhibited a modest downward trend during Q1. The PD fell from 157bps on December 31 2011, the highest month-end level since January 2011, to 140.4bps at the end of the quarter.
- A decline in the one-year PD for Chinese companies during Q1 reflects an increase in the likelihood of the Chinese government stepping up fiscal and monetary stimulus measures. The government support could be crucial method of countering economic fallout from its major Western trading partners, as well as internal economic and liquidity challenges. Meanwhile, the Chinese government has moved to alleviate liquidity strains that many small firms have faced since 2011.



Economy

- China's economic momentum decelerated in Q1 as pressures intensified, in domestic markets and from abroad, fuelling wide concerns about a hard-landing of the economy. Home prices continued to tumble;⁹ wage costs trended upwards;¹⁰ foreign demand, notably from Europe and the US, slowed; while foreign direct investments declined.¹¹ Against this backdrop, the Chinese government lowered the target for 2012 GDP growth to 7.5% from the previous 8%,¹² while the nation's GDP grew 8.1% year-on-year for the period ending Q1 2012, the slowest pace for 11 quarters.¹³ Moreover, aggregate profits at industrial companies slumped,¹⁴ a sign that the ability of Chinese companies to withstand an economic slowdown in overseas markets has weakened.

Political

- + The Chinese government's massive fiscal stimuli during 2008 and 2009, in response to the global financial crisis, caused the debt load of local governments to swell. This has consequently raised doubts over China's ability to weather the current economic downturn through further stimulus. However, in March Premier Wen Jiabao said that the

debt accumulation of local governments slowed during 2011.¹⁵ This could increase the Chinese government's confidence and give it leeway to introduce further fiscal stimulus packages to support the Chinese economy.

- + The government has introduced pilot financial reform projects, aimed at boosting liquidity support to small and medium-sized firms, after a financing drought in 2011 afflicted many such firms.¹⁶ This marked a financial reform that could have an unprecedented and nationwide significance as many small and medium-sized firms are seen as important sources of employment and economic growth.

Monetary

- + After cutting banks' reserve requirement ratio (RRR) by 0.5% on November 30, 2011 from a record high of 21.5%,¹⁷ the PBOC continued to loosen its monetary policy during Q1, cutting the RRR to 20.5% on February 24.¹⁸ Going forward, as inflation pressures ease, the PBOC may have more latitude to inject liquidity and support the Chinese economy.[†]

[†]China cut the RRR for a third time in six months on May 12, to 20% effective May 18.

Chinese Banks

- The one-year aggregated PD for Chinese banks fluctuated narrowly between 9 and 10.5bps, reaching 9.6bps at the end of Q1. This is markedly lower than a high of 13bps recorded in November 2011.
- Chinese banks' earnings remained robust and the banks' cash position is expected to continue to be favorable, in light of prudent liquidity measures by the PBOC and a recovery in the Chinese interbank market.



Profitability

- + Chinese banks' profits remain strong, with ICBC, BOC, and CCB reporting continued growth in profits and lending for the financial year ended December 31 2011. Meanwhile, growth in fees earned from intermediary services, such as consulting and interbank money transfers, provide strong support for the future earnings prospects of Chinese banks, as they diversify away from traditional lending businesses; service fees at Chinese banks increased at an average rate of 45.7% during 2011.
- + A further cut in the RRR by the PBOC on February 24 was expected to free up RMB 400bn at Chinese banks for new loans, increasing the potential for increased profits and placing downwards pressure on interbank lending rates.¹⁹
- Increasing customer interest in wealth management products offered by Chinese banks weigh on profitability, as Chinese banks are borrowing in interbank markets to fund payouts on these products in some situations. Such practices draw resources away from lending, and also deprive Chinese banks of cheap deposit funding. In January, the savings account deposit base of Chinese banks fell by RMB 800bn due to withdrawals; this was the largest monthly decline in 12 years.²⁰

Policies

- * The Chinese Government has postponed the implementation of stricter capital ratio requirements for Chinese banks until the end of the year, giving lenders additional time to prepare themselves. Chinese regulators originally planned to introduce the new requirements from July 1.²¹

- In early April, Premier Wen Jiabao criticized the monopoly position of state-run banks in China, and suggested that large Chinese banks should be broken up. Mr Wen's term ends in March 2013; China analysts believe that he may push through major reforms in his final months in office.²²

Funding and Liquidity

- + The ability of Chinese banks to absorb possible liquidity shocks improved in Q1, due to an easing in the PBOC's monetary stance, and more favorable conditions in the interbank market. The SHIBOR dropped below 5% at the end of March from 5.47% at the beginning of Q1.²³ Both values are lower than a high of 6.39% reached in June 2011, when the PBOC started its current monetary easing cycle.
- + Central Huijin Investment Company, China's sovereign wealth fund, ordered three of China's largest banks, ICBC, BOC and CCB, to lower the dividend payout ratio, a move that could preserve their liquidity. Persistent high dividends by state owned banks in the past had created a continuing need to tap markets for fresh capital.²⁴
- + After being deterred from raising capital due to softened market conditions during the second half of last year, Chinese banks are seeing more favorable funding opportunities following a rebound in the Hong Kong stock market since the start of 2012. In March, China MingSheng Banking Corporation raised USD 1.4bn in equity capital in Hong Kong markets, and the Bank of Communications is planning to raise USD 9bn in private placements. Other mid-sized Chinese banks are also planning to raise additional capital, according to market participants.²⁵

⁹Jan 18, 2012, [China Home Prices Mark Worst Performance as Only Two Cities Posting Gains](#), Bloomberg.

¹⁰Jan 4, 2012, [China pushes minimum wage rises](#), Financial Times.

¹¹Apr 17, 2012, [China's Foreign Direct Investment Declines a Fifth Month](#), Bloomberg.

¹²Mar 5, 2012, [China sets 2012 GDP growth target at 7.5%](#), China Daily Information.

¹³Apr 13, 2012, [China growth slowest since global crisis](#), Market Watch.

¹⁴Mar 27, 2012, [China industrial-company profits in surprise drop](#), Market Watch.

¹⁵Mar 13, 2012, [China added only \\$47 million local govt debt in 2011, says Wen](#), Reuters.

¹⁶Mar 29, 2012, [Wenzhou to pilot reforms](#), China Daily Information.

¹⁷Nov 30, 2011, [China cuts bank reserves in policy shift to lift economy](#), Reuters.

¹⁸Feb 18, 2012, [China to crank up credit as lending, economy slow](#), Reuters.

¹⁹Feb 19, 2012, [China Signals Concern Over Growth With Bank Move](#), The Wall Street Journal.

²⁰Feb 23, 2012, [China's Savers Wise Up to Above-Market Rates](#), Bloomberg.

²¹May 2, 2012, [China delays implementing new bank-capital rules](#), Market Watch.

²²Apr 3, 2012, [Wen Calls China Banks Too Powerful](#), The New York Times.

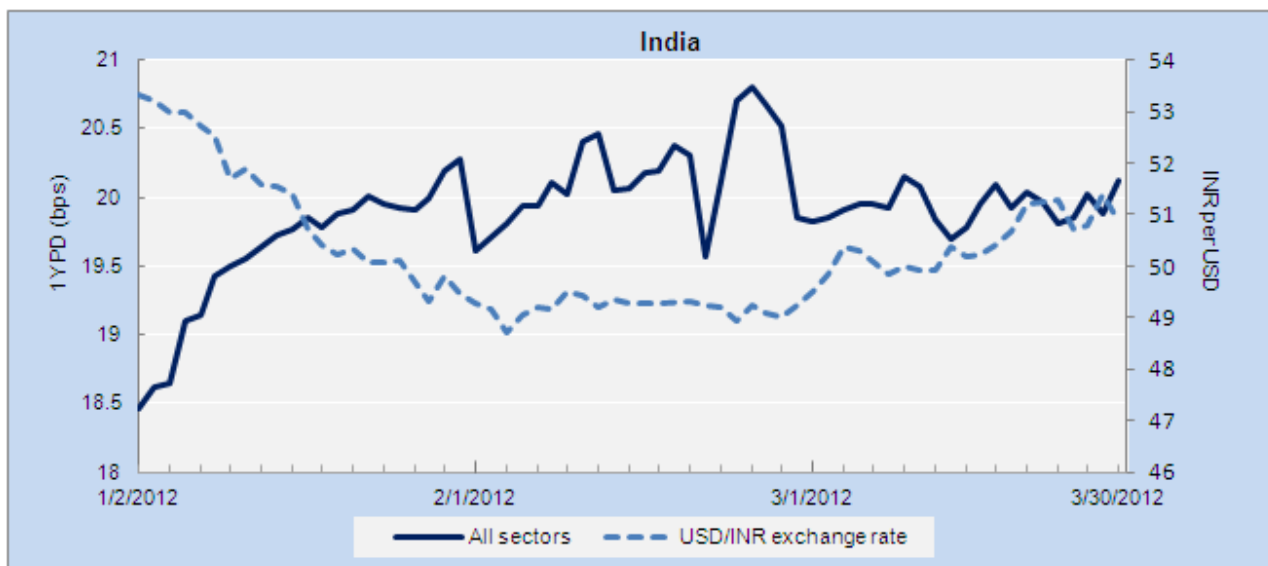
²³SHIF3M Index, Source: Bloomberg.

²⁴Feb 5, 2012, [China Addressing Capital Crunch Facing Banks: Analysts](#), CNBC.

²⁵Mar 26, 2012, [Minsheng Bank Seeks To Raise Up To US\\$1.46 Bln](#), The Wall Street Journal.

Indian Companies

- During Q1, the one-year aggregate PD stabilized at around 20bps. However, the credit outlook for Indian firms remained negative during Q1. Inflationary pressures, a weakened Rupee, and poor government finances continued to weigh on the business and liquidity prospects of Indian companies.



Economy

- Although the inflation rate eased to 6.89% from 7.74% over the quarter,²⁶ a widening in the Government's budget deficit continued to add to inflationary pressures.²⁷ This could impede India's economic growth by discouraging consumer spending, corporate investment and foreign direct investment.^{28,29} The government may introduce measures requiring basic wages to track soaring inflation, in response to nationwide strikes in February. Such measures would markedly increase salary expenses for Indian firms.³⁰
- The Rupee remained weak against the US dollar during Q1, recovering slightly to 48.69 on February 3. However, the currency had again depreciated to 50.87 by the end of Q1.³¹ Persistent weakness in the Rupee during Q1 placed cost pressures on Indian companies, as a weak Rupee translated into high costs for inputs originating overseas, and impaired the ability of Indian companies to service USD-denominated debt.
- Indian companies continue to face increasing tax burdens,³² as the Indian government's finances deteriorate. The government's budget deficit increased to 7.25% in Q4 2011, the highest level since Q1 2010.³³ On February 15, the government announced its disinvestment program will miss the target for the fiscal year 2011-12, weighing upon the Indian government's ability to restore its financial health through sales of state-owned assets.³⁴

Monetary

- + On January 24, the RBI cut the CRR to 5.5% from 6%, in a move that was expected to free up INR 320bn in the Indian banking system.³⁵ The RBI further boosted its liquidity

injection by cutting the CRR again to 4.75% on March 9. The second action will make a further INR 480bn available in the banking system.

Liquidity

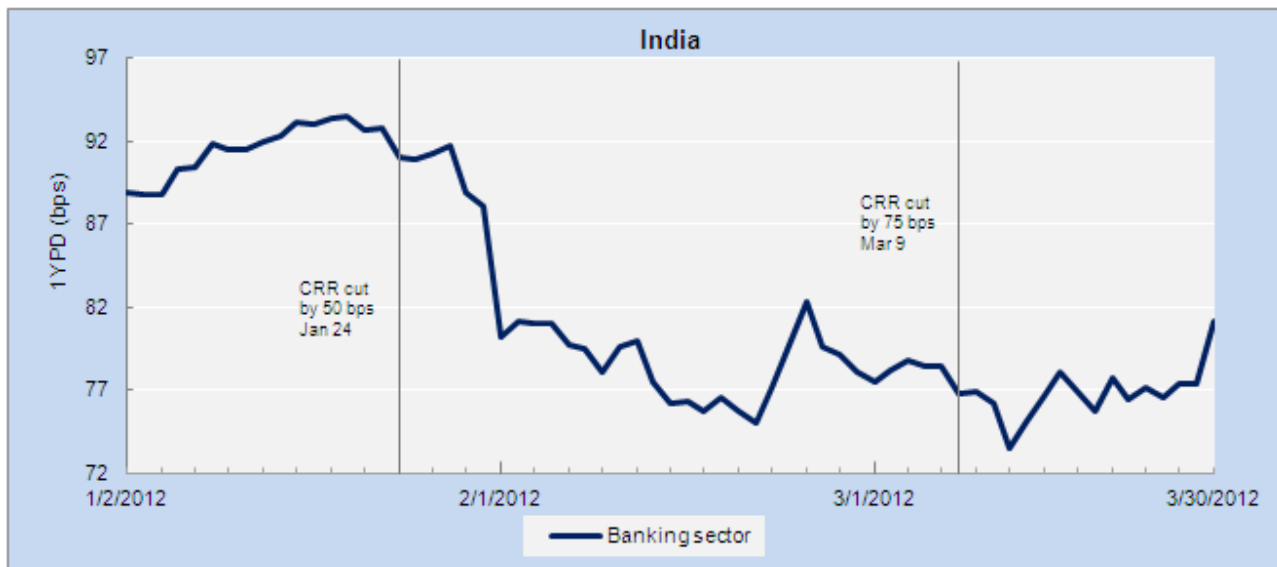
- Despite two rounds of CRR cuts, liquidity pressures on Indian companies persisted. In Q1, liquidity strains in the interbank market continued, and placed upward pressure on the cost of bank borrowing faced by Indian companies. In corporate bond markets, the government's crowding-out effect was evident, with heavy borrowing by the government pushing up company borrowing costs. The 3-month commercial paper rate reached 11.85% on March 20, the highest since December 2008.³⁶ Looking ahead, the crowding out effect may well continue. The Indian finance ministry expects government borrowing to increase 8% year-on-year during the fiscal year 2012-2013.³⁷

Policies

- Economic reforms, which are important for reversing a slowing Indian economy, continued to see slow progress in Q1. Poor results for the ruling Congress party in elections in five Indian states on March 6 raised market concerns that a re-launch of Indian economic reforms would be challenging.^{38,39}

Indian Banks

- Indian banks' PD eased slightly over Q1, but remained at an elevated level, falling 9bps to 82bps on March 31. However, the level was well above an average PD of 46.1bps during 2011.
- The credit outlook for Indian banks remained negative, despite monetary easing and a government commitment to inject further capital into public sector banks. Negative impacts from tight liquidity conditions and an economic slowdown undermined the overall credit outlook for Indian banks.



Liquidity

- + Two rounds of CRR cuts by the RBI during Q1 increased the funds Indian banks had available for lending. In addition, the State Bank of India, the largest Indian lender, agreed to a capital infusion from the government on January 31, while the RBI resumed sovereign debt purchases from Indian banks on February 1.
- However, liquidity deficits persisted in Indian interbank markets. The overnight deposit rate remained at elevated levels during Q1, reaching 9.6% on March 26.⁴⁰ Meanwhile, competition for deposits among Indian banks was tense, leading to increases in key deposit rates. State Bank of India, which accounts for 20% of bank savings in India, raised interest rates on term deposits below one year by as much as 1% on March 28. Other Indian banks may follow suit in raising deposit rates, following the deregulation of such rates late last year.^{41,42}

Asset Quality

- The outlook for Indian banks' asset quality continued to be negative, due to an anticipated further slowdown in the Indian economy. Indian Finance Minister, Pranab Mukherjee, voiced such concern on January 6, while the RBI has requested that Indian banks implement risk management mechanisms designed to detect early signs of loan distress, and make it easier for borrowers to restructure their loans.^{43,44}

Capital Levels

- + The Indian government announced that it will inject about INR 15bn into public sector banks during the fiscal year ending March 2013.⁴⁵ This follows total capital infusions of INR 201.6bn during the fiscal year ending March 2012, aimed at maintaining the Tier 1 capital ratio of Indian public sector banks above 8%.

²⁶INFIFY Index, Source: Bloomberg.

²⁷Mar 15, 2012, [India budget could be key for market](#), Market Watch.

²⁸Mar 7, 2012, [India has considerable room to improve business scenario](#), The Economic Times.

²⁹Feb 5, 2011, [Governance, inflation hit FDI flow](#), The Times of India.

³⁰Feb 28, 2012, [Mixed response to India workers' strike](#), BBC News.

³¹INR BGNT Curncy, Source: Bloomberg.

³²Feb 5, 2012, [Govt may bring more services in tax net](#), The Financial Express.

³³EHBBIN Index, Source: Bloomberg.

³⁴Feb 15, 2012, [Govt to miss disinvestment goal](#), The Financial Express.

³⁵Jan 24, 2012, [India Unexpectedly Cut Reserve Ratio as BRIC Nations Act to Protect Growth](#), Bloomberg.

³⁶IRCP3M Index, Source: Bloomberg.

³⁷Feb 16, 2012, [India to Increase Borrowing Next Year](#), The Wall Street Journal.

³⁸Mar 7, 2012, [Sensex drops on reform worries](#), The Financial Express.

³⁹Mar 7, 2012, [What India's Election Meant](#), The Diplomat.

⁴⁰IRDR1T Index, Source: Bloomberg.

⁴¹Mar 28, 2012, [State Bank of India raises term deposit rates](#), The Economic Times.

⁴²Mar 29, 2012, [Banks likely to hold deposit rates till liquidity improves](#), Business Standard.

⁴³Jan 6, 2012, [Bank's deteriorating NPAs a concern: Pranab Mukherjee](#), Daily News And Analysis.

⁴⁴Apr 17, 2012, [RBI bats for retail depositors, gets tough on bank NPAs](#), Firstpost.

⁴⁵Apr 13, 2012, [Govt to infuse Rs. 1,500 crore in PSU banks](#), The Hindu.

North America

US Companies

- During the first half of Q1, the one-year aggregate PD for US companies exhibited a noticeable downward trend. It declined from 60bps at the start of Q1, to about 50bps at the beginning of February, remaining at a similar level for the rest of Q1. However, the PD value at the end of Q1 was still above an aggregate PD of 43bps recorded in July 2011, the lowest recorded level since the outbreak of the subprime mortgage crisis in 2007.
- This PD movement reflected an improvement in the credit outlook for US companies, in line with positive developments on various fronts. A number of economic figures released in Q1 indicated a broad pickup in the US economy. Notably, improvements were seen in US private consumption, lifting market expectations for a US economic recovery. However, even with these improvements, RMI CRI PD suggests that the credit outlook for US companies remains challenging, as the aggregate one-year PD at the end of Q1 remained above levels recorded before the subprime mortgage crisis.



Economy

- + The US unemployment rate edged down from 8.3% to 8.2%. The Thomson Reuters and University of Michigan index of consumer sentiment climbed to 76.2 in March, the highest since February 2011.⁴⁶ Furthermore, US car sales bounced back during Q1, reaching 14.3m units in March on an annualized basis, after reaching 15m units in February, the highest level in four years.⁴⁷

Monetary

- + The US Federal Reserve continued with an accommodative monetary policy during Q1, with the target range for the fed fund rate kept between 0 and 0.25%. The Fed stated that it plans to maintain current low interest rates through to late-2014 during Q1. If economic growth or inflation decreases significantly in the coming months, the Federal

Reserve could start a third round of bond purchases to push down long-term borrowing costs, but the Fed would use reverse repos and term deposits to control the amount of cash banks hold.⁴⁸

Liquidity

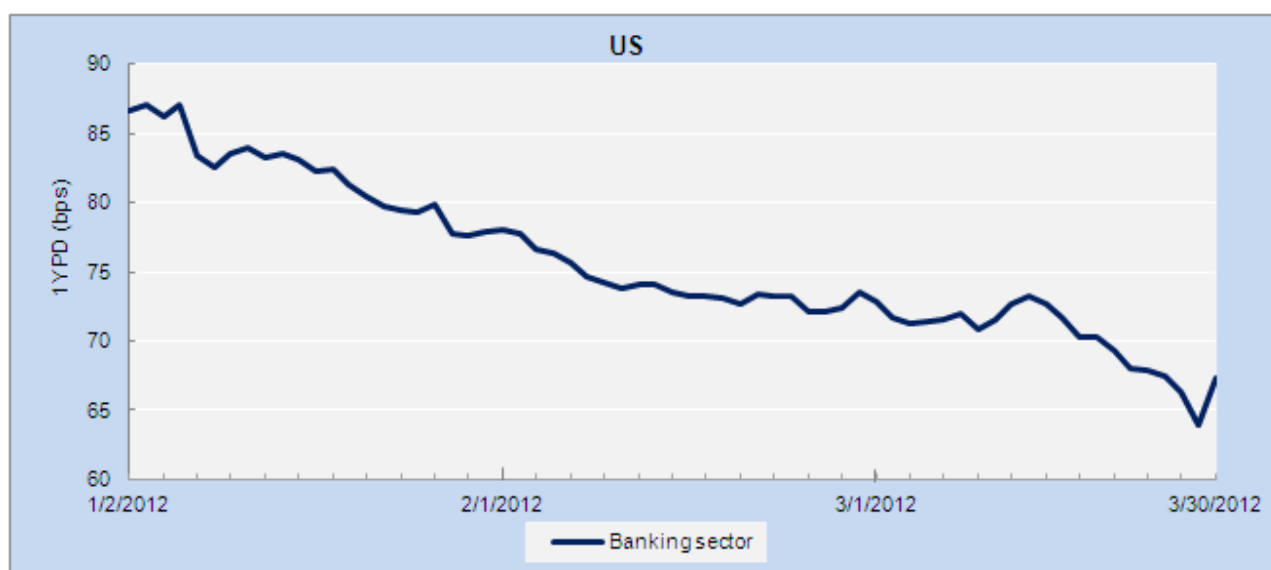
- + In Q1, US companies' funding ability increased, due to a return in investor risk appetite. Weekly investment-grade corporate bond sales rose to a USD 39.1bn for the week ending March 8, the highest level since the week ending March 9, 2009.⁴⁹ As demand for safe investments with higher returns than US Treasuries increased significantly in Q1, yields on investment grade corporate bonds fell to a record low of 3.27%.⁵⁰
- + Bank lending was supportive during Q1, with US banks reportedly easing lending standards during the quarter.⁵¹ According to FDIC data for the previous quarter, bank balances increased 1.8% quarter-on-quarter in Q4, with bank lending to small businesses increasing for the first time in seven quarters.⁵²

Policies

- + The US congress on February 17 passed legislation that extends a payroll tax cut to December 2012 and continues long-term unemployment benefits.⁵³ This should boost consumer spending, an important contributing factor to a strong US economic recovery.
- Proposals by both US political parties over future corporate tax rates creates uncertainty for US firms, with Democrats pushing for a tax rate of 28% and the elimination of a majority of tax breaks, and Republicans supporting an even lower rate of 25%.⁵⁴ Current tax breaks allow many US companies to pay an effective tax rate well below the tax rates proposed by the major political parties, despite higher current statutory tax levels.

US Banks

- In Q1, the PD for US banks exhibited a declining trend, from 86 bps at the start of the quarter, to around 68bps at the end of the quarter. This is the lowest recorded level since September 2007, during the onset of the subprime mortgage crisis.
- US banks benefited from an overall improvement in the US economy, albeit a modest one. The asset quality of US banks showed small signs of improvements. The credit outlook of US banks was further boosted by a recovery in investor confidence that created a more favorable financing environment for US banks.[†] However, incoming regulatory changes and a depressed housing market continue to weigh upon the credit outlook of US banks.



Profitability

- + Bank credit extended to consumers continued to expand during Q1, increasing 2% to USD 2.54tr in March.⁵⁵ Fees from underwriting asset-backed securities also increased, as new issuances of ABS backed by auto loans during Q1 approached levels not seen since 2006.⁵⁶

Funding and Liquidity

- + US banks have been facing funding pressures as they need to repay over USD 200bn of government-backed funding which matures this year. However, the pressure is set to ease, as investor confidence in US banks improved during Q1, after stress tests by the Fed On March 16 revealed that a majority of US banks would survive a severe economic downturn with capital levels above regulatory requirements. Investor demand for debt issued by major US banks strengthened in the weeks following,⁵⁷ while US bank stocks rallied 20% during Q1.⁵⁸

[†]A USD 2bn trading loss announced by JPMorgan Chase in May weighed upon this favourable financing environment.

Regulatory

- + US banks will be able to claim write downs on housing loans with negative equity through the federal home affordable modification program; banks could receive up to 63 cents for each dollar of principal forgiven.⁵⁹
- + The implementation of the Volcker rule would prevent US banks from engaging in proprietary trading, widely considered the most risky activity at US banks. The rule will prohibit US banks from taking on large propriety positions similar to the investments in real estate derivatives that caused large losses at US banks during the global financial crisis. US banks will also be restricted from investing or sponsoring hedge funds and private equity businesses under the rule.
- However, the implementation of the Volcker rule could also constrain banks market making businesses and the ability of US banks to engage in indirect hedging trades. In addition, introduction of the Volcker Rule will also significantly increase the regulatory compliance costs facing US banks.

Asset Quality

- + In Q1, a recovery in the US economy had a positive effect on the asset quality of US banks. Delinquency rates at major US banks fell from January to March, as a higher proportion of customers managed to keep up with bill payments.^{60,61}
- Nevertheless, the US housing market remained a concern for the US banking sector. The S&P/Case-Shiller Composite-20 Home Price Index remained close to 136 in January and February,⁶² the lowest level since January 2003. Meanwhile, foreclosures are expected to rise in the coming months after US states lift bans on foreclosures, following the finalization of a mortgage and foreclosure settlement in February between five large US banks and 49 US states.⁶³ Recent news reports indicate that a number of US financial institutions are toeing the line on risky lending behavior, such as extending credit to less-than-creditworthy borrowers, and subprime mortgage lending.⁶⁴

Credit Ratings

- It was reported that Moody's could downgrade the credit ratings of several major Wall Street banks, including Morgan Stanley, Bank of America, and Citigroup. Currently, Moody's rates these banks A2, A3, and Baa1 respectively, but could downgrade each bank to just above investment grade.⁶⁵

⁴⁶Mar 31, 2012, [Consumers in U.S. Boost Spending as Confidence Rises](#), Bloomberg.

⁴⁷Apr 26, 2012, [US auto-loan bond issuance seen nearing pre-crisis levels](#), Reuters.

⁴⁸Mar 7, 2012, [Sterilized Bond Buying an Option in Fed Arsenal](#), The Wall Street Journal.

⁴⁹Mar 8, 2012, [US corporate bond sales rise to \\$39.1bn](#), Financial Times.

⁵⁰Mar 5, 2012, [A Busy Day In Bond Markets](#), The Wall Street Journal.

⁵¹Apr 30, 2012, [Fed: Banks Eased Credit Standards in 1Q](#), Fox Business.

⁵²Feb 28, 2012, [FDIC says U.S. banks in position to help economy](#), Reuters.

⁵³Apr 17, 2012, [Congress extends payroll tax cut, sends to Obama](#), Reuters.

⁵⁴Feb 22, 2012, [Obama Offers to Cut Corporate Tax Rate to 28%](#), The New York Times.

⁵⁵May 7, 2012, [Consumer Credit - G.19](#), The Federal Reserve.

⁵⁶Apr 26, 2012, [US auto-loan bond issuance seen nearing pre-crisis levels](#), Reuters.

⁵⁷Mar 20, 2012, [Banks exploit falling rates to sell bonds](#), Financial Times.

⁵⁸MXUS0BK Index, Source: Bloomberg.

⁵⁹Feb 16, 2012, [US taxpayers to subsidise \\$40bn housing settlement](#), Financial Times.

⁶⁰Apr 16, 2012, [Delinquency rates fall at major U.S. banks](#), Reuters.

⁶¹Mar 15, 2012, [Delinquency rates fall at major U.S. banks](#), Reuters.

⁶²SPCS20SA Index,, Source: Bloomberg.

⁶³Feb 16, 2012, [Foreclosures on the Rise Again](#), CNBC.

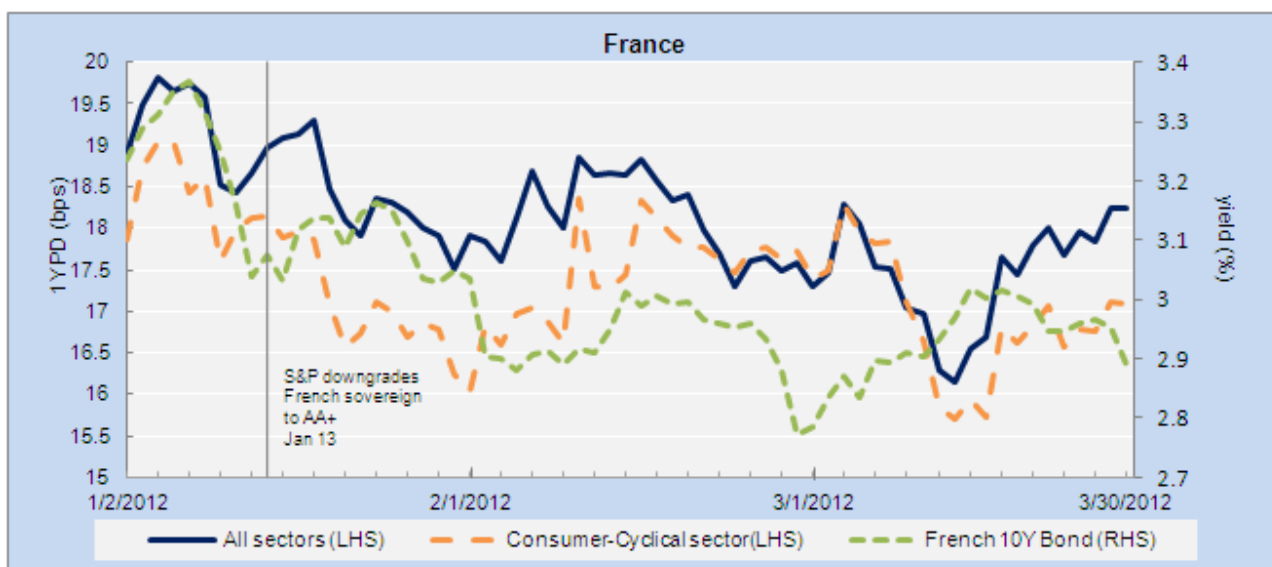
⁶⁴Apr 10, 2012, [Lenders Again Dealing Credit to Risky Clients](#), The New York Times.

⁶⁵Mar 29, 2012, [Three Major Banks Prepare for Possible Credit Downgrades](#), The New York Times.

Western Europe

French Companies

- During Q1, the one-year aggregate PD for French companies remained high, hovering between 16 and 20bps, slightly higher than the 17.4bps recorded in December 2011, the highest month-end level since the onset of the European sovereign debt crisis. The PD for companies in the cyclical consumer sector also remained elevated during Q1, compared to a low of 9bps last June.
- The positive effects on French companies' overall credit outlook from the ECB's LTROs and a subsiding of the European debt crisis appear to be fleeting. Risks posed by a grim employment market and deteriorating public finances continued to linger over a slowing economy. At the same time, a change in government adds uncertainty to the credit outlook for French companies.



Economy

- After a lukewarm recovery in Q3 and Q4 last year, in Q1, the French economy showed signs that its struggle to gain traction could continue. France's PMI reading fell to 49 in March, from 50.2 in February, signaling a renewal in the contraction of private sector output that began last October. Subdued domestic demand, which the March PMI report attributed to slumping private sector output,⁶⁶ underlined France's chronic and over-riding labor market issues which saw the unemployment rate soar to nearly 10% last December. This may explain why French stock markets appeared to ignore a surprising improvement in French consumer and business confidence in March,^{67,68} with the CAC40 continuing its downward trend after the news announcement.

Political

- The operating environment may become more difficult for French companies under Francois Hollande, the new President of France. Mr. Hollande plans to raise the total tax level to 46.9% of GDP from 45.1%, already amongst the highest levels in the world.⁶⁹

He also plans to increase the tax rate paid by the biggest French companies to 35%, and repeal EUR 29bn in tax breaks over the next five years.⁷⁰ A campaign focus on growth instead of austerity to solve the eurozone's problems puts him at odds with the German government, creating further uncertainty for French companies.

Liquidity

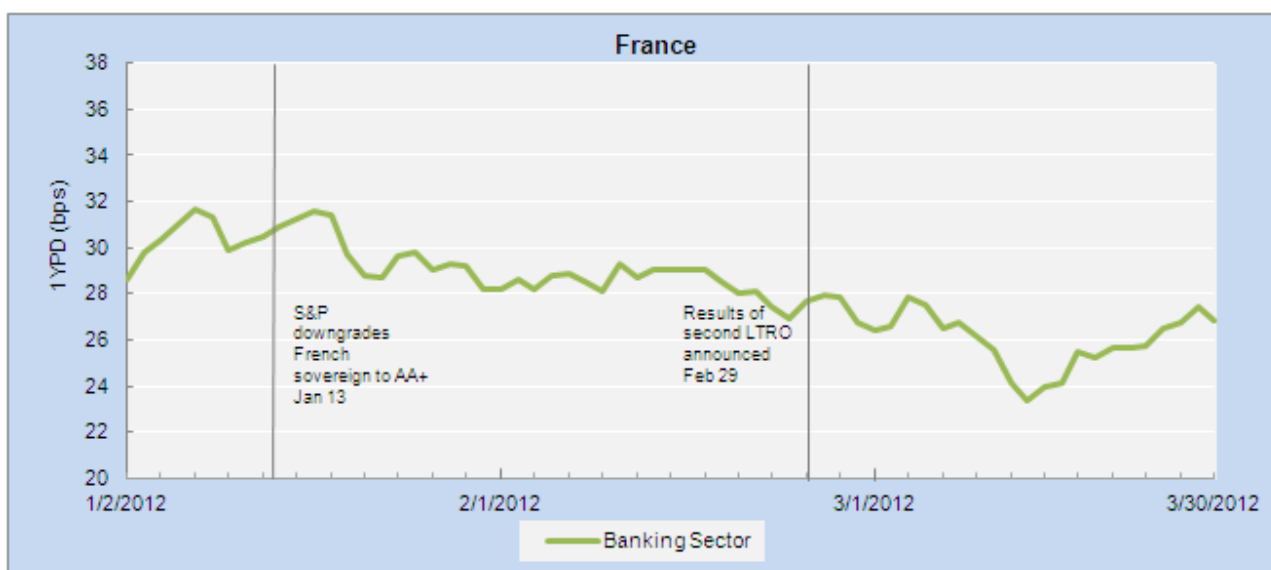
- + Liquidity conditions for French companies improved in Q1, thanks to the ECB's 3-year LTROs and renewed commitment by banks to business lending. According to the French corporate treasuries association, 35.4% of its member companies had difficulties in obtaining bank financing in February, down from 39.8% in January and 47% in December.⁷¹

Sovereign Credit Rating and Public Finances

- While a debt to GDP ratio of 85.5% and a budget deficit to GDP ratio of 7.1% are low compared to more indebted nations, a slowing economy means improving the state of French public finances may be challenging. Although French government bond yields remained low following the one-notch downgrade of the country's credit rating to AA+ by S&P on January 14, French companies continue to face higher borrowing costs, due to the troubled state of governmental finances.

French Banks

- The 1-year aggregated PD for French banks exhibited a downward trend during Q1, closing at the lowest month-end level since April 2010.
- The equity performance of listed French banks tumbled in 2011 due to market concerns regarding their heavy exposures to debt issued by peripheral European nations. However, French banks have benefited significantly from the combination of a temporary easing in the European debt crisis and liquidity support from the ECB. This has offset downside risks stemming from possible domestic policy changes, resulting in an improvement in the credit outlook for French banks.



Policies

- French banks' earnings are facing considerable risks from possible changes to public policy and regulations. New French President Francois Hollande called for a number of changes to the banking industry during his election campaign, including a separation of the retail and investment banking businesses of French banks, and higher taxes for the banking industry. These measures, if implemented, could significantly impact upon the profitability and competitiveness of French banks.⁷²

Liquidity

- + French banks experienced an acceleration in the growth of deposits during Q1, as increasingly risk averse savers increased their deposits at the fastest rate in almost 30 years. This has alleviated the liquidity pressures on banks somewhat, even as liquidity in the interbank market remained subdued.⁷³
- + The ECB's liquidity expansion was another important contribution towards an improvement in the liquidity position of French banks in Q1.⁷⁴ Notably, the second 3-year LTRO on February 29 prompted a significant reduction in the CDS spreads for major French banks, as market perception of their creditworthiness improved.⁷⁵

Asset Quality

- + An easing in Italian government bond yields during Q1 was positive for the credit outlook of French banks, whose holdings of Italian bonds accounted for about 50% of the total amount held by European banks at the end of last June.⁷⁶

Credit Ratings

- On January 24, S&P cut the credit ratings of Societe Generale and Credit Agricole by one notch to A, in a move that was widely anticipated by the market, after the French government's credit rating was lowered days before.

⁶⁶Mar 22, 2012, [Markit Flash France PMI](http://www.markiteconomics.com), Markit, <http://www.markiteconomics.com>

⁶⁷Mar 27, 2012, [French Consumer Confidence Soars](#), The Wall Street Journal.

⁶⁸Mar 30, 2012, [French Consumer Spending Gained as Cold Boosted Energy Use](#), Bloomberg.

⁶⁹Feb 16, 2012, [A French Socialist Who Understands Business](#), Bloomberg.

⁷⁰May 6, 2012, [French President-Elect Francois Hollande's Economic Proposals](#), Bloomberg.

⁷¹Feb 20, 2012, [French banks vow to keep credit flowing](#), Reuters.

⁷²Mar 27, 2012, [French banks braced for a political fight](#), Financial Times.

⁷³Jan 9, 2012, [Record French savings hit growth, boost banks](#), Reuters.

⁷⁴Mar 2012, [European bank funding and deleveraging](#), Bank of International Settlements, <http://www.bis.org>

⁷⁵Feb 29, 2012, [European financials move tighter as ECB reveals large LTRO demand](#), Creditflux.

⁷⁶Nov 9, 2011, [Italy's Political Woes Spell 'Nightmare' for BNP, Agricole](#), Bloomberg.

German Companies

- In Q1, the one-year aggregate PD for German companies fell from a high of 34.2 bps during Q4 to 28.1bps on March 15. However, the PD increased towards the end of March, reversing part of the PD improvement during Q1.
- With a temporary easing of the European debt crisis in Q1, the credit outlook for German companies improved moderately. Ample liquidity and an apparent rebound in business and consumer confidence provided support for this positive development. However, downside risks to the export-reliant German economy remain, especially as economic growth in Europe slows.



Economy

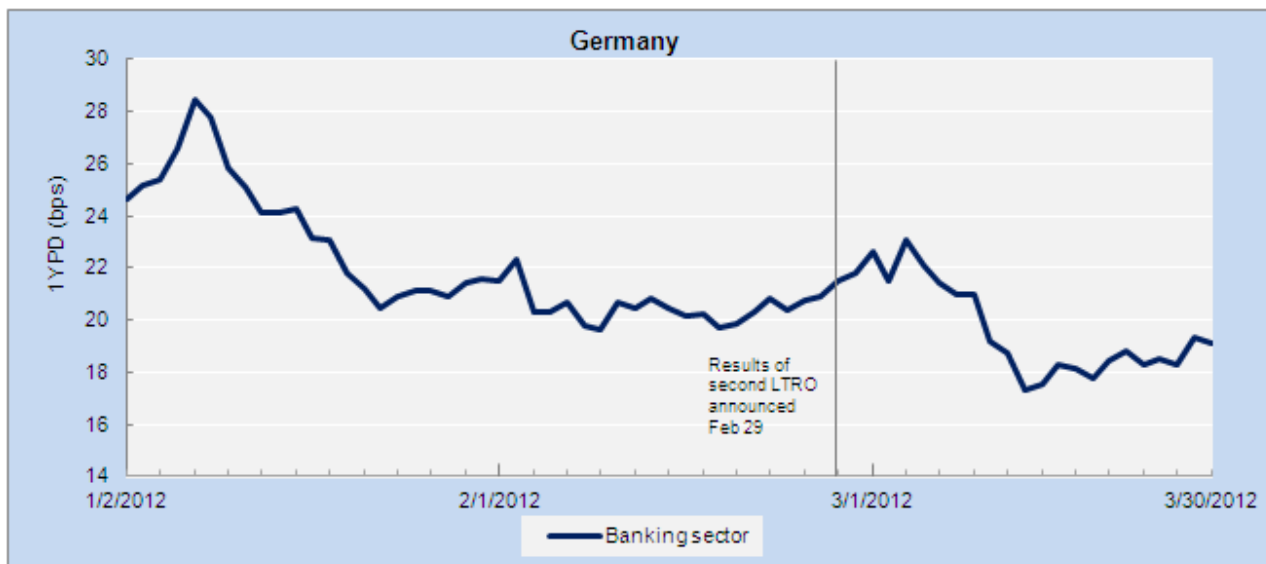
- + In contrast to the gloomy employment situation in peripheral European countries that have been battered by the debt crisis, Germany's labor market remained buoyant during Q1. The unemployment rate continued to decline during Q1, falling to 6.8% in March, the lowest level on record. The improvement in the employment market could provide support to the German economy, boosting the possibility of averting a technical recession. Germany recorded a GDP decline of 0.2% in Q4.⁷⁷
- In March, Germany's PMI fell to 48.1 from 50.2 in February, with manufacturers reporting an increase in the rate of decline in exports.⁷⁸ This underlines the risks facing a German economy oriented towards exports and manufacturing, against the backdrop of a global economic slowdown.
- Germany's government lowered its forecast of 2012 GDP growth to 0.75% from an earlier prediction of 1% in October 2011. Both estimates are significantly lower than GDP growth of 3% recorded during 2011.⁷⁹

Liquidity

- + Credit availability to businesses continued to improve, as credit constraints for German trade and industry fell during Q1, and reached a record low of 20.3% in March, according to an Ifo Business Survey for March 2012, indicating that a smaller percentage of German companies reported restrictive credit conditions during Q1.⁸⁰

German Banks

- In Q1, the 1-year aggregate PD for German banks stabilized in a lower range compared to Q4. Ample liquidity as a result of the February ECB LTRO and a flight to safety amongst European depositors to German banks boosted the credit outlook of the sector, at a time when recent prudent government policies provided an additional safeguard for German banks.



Policies

- + Backed by Chancellor Angela Merkel, the reactivation of the German bank rescue fund Soffin was approved by Germany's lower-house. EUR 480bn has been allocated to the fund. This moved Germany a step closer to a resumption of the liquidity provisions and recapitalization services the fund provided to banks between 2007 and 2010.⁸¹

Liquidity

- + The liquidity provided by the ECB's LTRO in February is expected to have significant beneficial impact on the German banking system, as more than half of the 800 participants in the February LTRO were reportedly German banks, most of which were small banks.⁸²
- + The flight of deposits to the relative safety of German banks, which had driven the total deposits at German banks to historically high levels last quarter, could continue. The total amount of deposits at German banks reached a record EUR 2.2tn this March, despite the clinching of the second Greek bailout deal.⁸³

Asset Quality

- + Ample liquidity at German companies is placing downward pressure on the levels of non-performing assets at German banks due to refinancing opportunities; this has contributed positively to the asset quality and balance sheets of German banks.

⁷⁷Feb 20, 2012, [German Economic Outlook Improves](#), The Wall Street Journal.

⁷⁸Mar 22, 2012, [Markit Flash Germany PMI](#), Markit, <http://www.markiteconomics.com>

⁷⁹Jan 12, 2012, [Germany To Slash 2012 Growth Estimate](#), Nasdaq.

⁸⁰March, 2012, [Credit Constraints Drop to New Low](#), CES ifo, <http://www.cesifo-group.de>

⁸¹Jan 26, 2012, [Germany Revives Bank-Rescue Fund as Bulwark Against Debt Crisis](#), Bloomberg.

⁸²Mar 29, 2012, [German Jobless Fell in March as Economy Showed Resilience](#), Bloomberg.

⁸³TODEMODE Index, Source: Bloomberg.

Greek Companies

- The one-year aggregate PD for Greek companies fluctuated considerably throughout Q1 before ending the quarter lower at 111.5bps.
- There were heightened uncertainties over Greece's second bailout in the early part of Q1, which destabilized the country's economic and financial condition and unsettled the credit outlook for Greek companies. Although rescue packages were finally approved by eurozone governments and the IMF on March 12 and 15 respectively, the risks posed by Greece's weak public finances and fundamental economic problems remain grave, and continue to linger over the country.



Economy

- + The approval of the second aid package in February saved the Greek economy from an imminent catastrophe and provided more time for the government to implement economic reconstruction.
- Substantial challenges remain in Greece's economic recovery; the economy has long been paralysed by austerity and mired by a lack of competitiveness. After four years of recession, the Greek economy is still expected to experience a protracted period of recession during 2012, according to separate economic forecasts by the Bank of Greece and the IMF.^{84,85}
- The ISDA ruled that the debt restructuring by the Greek government in March constituted a default, leaving the government dependent on international aid for the foreseeable future, and bound by the limitations that accompany such aid, significantly curtailing the ability of the government to support Greek companies.

Political

- Looking ahead, the risk of Greece defaulting on its debt remains significant, due to domestic political uncertainty and ongoing oversight by the EU and larger European nations. Persistent domestic opposition to austerity, an election in April[†] and a cumbersome bureaucracy adds to the risk that Greece may need further refinancing assistance from Europe.^{86,87} This comes at a time when uncertainty remains over the willingness of EU leaders to sufficiently augment the rescue capacity of the ESM and the EFSF. Eurozone finance ministers raised the combined size of the EFSF and ESM to EUR 700bn on March 30, from EUR 500bn, but the increase was below the EUR 1tn suggested by the OECD on March 27.^{88,89}

Liquidity

- The lingering risk of Greece defaulting again in the future is a threat to the stability of the liquidity profiles of Greek companies. ECB funds, a critical source of liquidity for the Greek economy, would become inaccessible to Greek banks in such a situation.^{90,91}

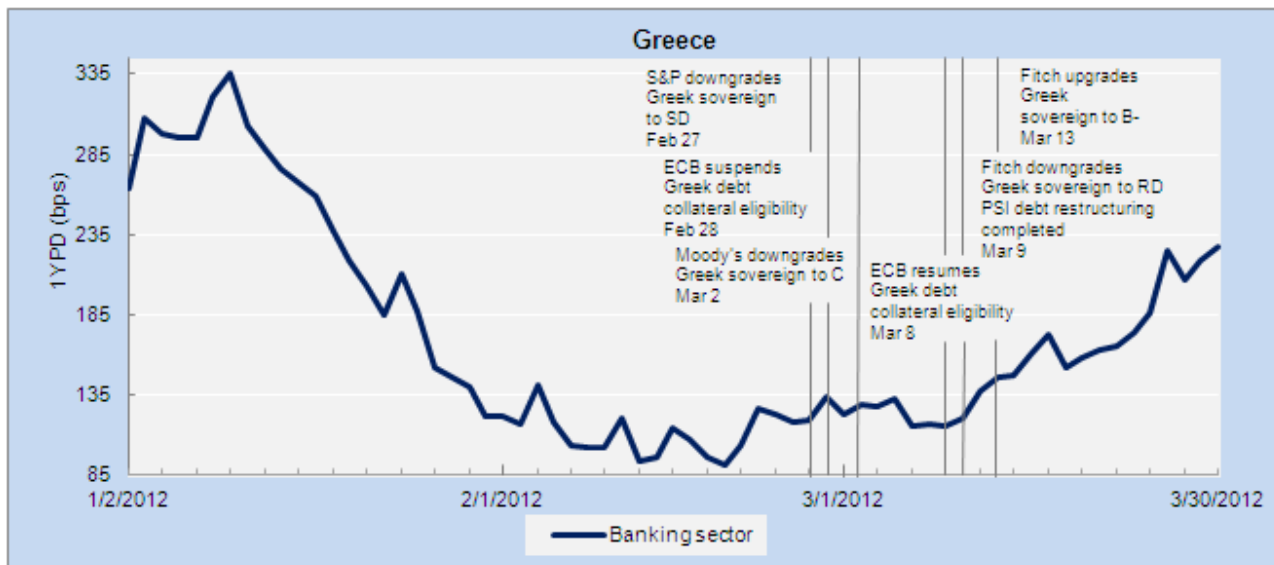
Sovereign Credit Rating

- Greece's recently enacted collective action clauses and distressed debt exchange prompted downgrades of its sovereign credit rating to levels indicating a default. On February 27, S&P slashed Greece's long-term and short-term sovereign credit ratings to selective default.⁹² Moody's downgraded Greece to C on March 2,⁹³ while Fitch downgraded the country to restricted default on March 9.⁹⁴
- Fitch upgraded Greece to B- on March 13, stating that the country's successful debt restructuring could provide debt relief of about EUR 100bn. However, the rating agency cautioned that Greece still faces significant risks, and another downgrade into default due to the nation's debt burdens and sluggish economy.⁹⁵

[†]Small parties campaigning against austerity measures garnered a high proportion of votes in the election. At the date of publication, neither major Greek political party had been able to form a ruling coalition, which could force another election in June.

Greek Banks

- The one-year aggregate PD for Greek banks fell markedly in the first half of Q1, reflecting the optimism brought by Greece's second bailout. However, it rose subsequently during the rest of quarter.
- The PD remained elevated at the end of Q1, as a pessimistic economic outlook and the persistent risk of a sovereign default weighs on the asset quality and liquidity profile of Greek banks.



Liquidity

- The liquidity profile of Greek banks remains subject to several downside risks, due to the continuing risk of a Greek default or exit from the eurozone. Withdrawals of deposits by panicking households and businesses could continue.⁹⁶
- The possibility of a Greek default could further impair the collateral of Greek banks, and reduces the chance of continued liquidity support from the ECB. Should Greece fail to secure timely financing to cover unexpected future needs and subsequently defaults, Greek bonds would no longer be eligible collateral for Greek banks' funding operations with the ECB. The first such ECB action happened during February 28 and March 7, when uncertainty regarding Greece's second bailout package prompted the ECB to suspend the acceptance of Greek bonds as collateral, leaving Greek banks dependent on the Greek central bank for liquidity.

Asset Write-downs and Quality

- + The EU and IMF have provided about EUR 50bn to Greek banks for recapitalization, which may ward off severe damage from asset write-downs at Greek banks following the governments EUR 100bn debt-swap.⁹⁷
- Non-performing loans could continue to surge as the Greek economy deteriorates, impairing asset quality at Greek banks. The NPL ratios of Greek lenders have exhibited a clear upward trend, as the average NPL ratio for Greek banks increased to 14.7% at the end of last September from 10.5% at the end of December 2010.⁸⁴

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- ⁸⁴Mar 19, 2012, [The Bank of Greece Report on Monetary Policy 2011-2012](#), 4-traders.
- ⁸⁵Mar 16, 2012, [Greece to exit recession "by 2014"](#), Channel News Asia.
- ⁸⁶Mar 16, 2012, [IMF Report Offers Bleak Outlook for Greece](#), The Wall Street Journal.
- ⁸⁷Oct 17, 2011, [Bureaucracy in Greece Defies Efforts to Cut It](#), The New York Times.
- ⁸⁸Mar 30, 2012, [Euro zone raises bailout capacity to 700 billion euros](#), Reuters.
- ⁸⁹Mar 27, 2012, [OECD urges eurozone rescue fund boost to 1tn euros](#), BBC News.
- ⁹⁰Feb 28, 2012, [ECB edict leaves Greek banks reliant on emergency aid](#), Reuters.
- ⁹¹Mar 8, 2012, [ECB to again accept Greek bonds as collateral](#), Market Watch.
- ⁹²Feb 27, 2012, [S&P downgrades Greece](#), The Telegraph.
- ⁹³Mar 3, 2012, [Greece Ratings Cut to Lowest Level by Moody's](#), Bloomberg.
- ⁹⁴Mar 9, 2012, [Fitch Lowers Greece's Rating to Restricted Default](#), The Wall Street Journal.
- ⁹⁵Mar 13, 2012, [Fitch lifts Greece out of default territory, risks still high](#), Reuters.
- ⁹⁶Mar 14, 2012, [Greek February Bank Deposits Fall EU3 Billion, Naftemporiki Says](#), Bloomberg.
- ⁹⁷Mar 17, 2012, [Greek Banks May Not Need All Aid Earmarked By EU/IMF](#), The Wall Street Journal.

Italian Companies

- The one-year aggregate PD for Italian companies fluctuated considerably during Q1, and remained elevated compared to a low of 14.4bps in May 2011.
- Italian government bond yields fell from the record highs seen in Q4 during Q1, as the ECB's 3-year LTROs increased appetite for Italian sovereign debt amongst European banks and investors. However, a number of economic statistics released in Q1 indicated that the Italian economy continued to languish under the weight of austerity measures, indicating a less-positive outlook for Italian companies.



Economy

- + The Italian government introduced several liberalization reforms aimed at reviving the Italian economy during Q1. Liberalization reforms in the service sector are aimed at promoting efficiency and growth in large sectors of the Italian economy long sheltered from foreign competition by restrictions.⁹⁸ Reforms last year eased the pension burden on Italian firms.^{99,100}
- Amidst the Italian government's austerity measures, the Italian economy entered a technical recession, with the nation's GDP contracting 0.7% in Q4 and 0.2% in Q3 last year.¹⁰¹ The country's unemployment rate surged to a record 9.2% in January.¹⁰² Despite Prime Minister Mario Monti planning an introduction of stimulus packages in the near future, the Bank of Italy forecasted that the Italian economy could shrink by a further 1.5% in 2012, more than a government estimate of a 0.4% decline.

Liquidity

- + The two 3-year LTROs by the ECB eased the cost of borrowing in Italy, with the yield on the country's 10-year bond plunging to a low of 4.85% on 1st February from a peak of 6.7% reached in Q4 2011. The decreased benchmark borrowing costs eased financing strains on Italian companies, but it is unclear how long the low interest rates can be maintained, given ongoing market concerns and the ECB's intention to cease LTROs.¹⁰³
- The ECB's efforts to improve liquidity conditions could be offset by stricter incoming

bank capital rules across Europe. Lending by Italian banks could remain subdued as they seek to recapitalize to meet the EBA's new capital requirements by June.

- Italian banks' investments in government bonds prevented a large take-up of the ECB LTRO liquidity by Italian banks from reaching the real economy,¹⁰⁴ at a time when credit is needed to boost the Italian economy.

Sovereign Credit Rating

- Italy's sovereign credit rating was downgraded two notches to BBB+ by S&P on January 13,¹⁰⁵ and was downgraded two notches to A- by Fitch on January 27.¹⁰⁶

Italian Banks

- The one-year aggregate PD for Italian banks dropped during the early part of Q1. However, the PD subsequently rose during the rest of the quarter, reversing much of the earlier decline.
- The ECB's LTROs contributed significantly to the improvement in the credit outlook of Italian banks. However, it could also lead to a deepening in the banks' dependence on ECB funds.



Liquidity

- + Liquidity strains facing Italian banks eased after the ECB's 3-year LTRO in February, during which Italian lenders borrowed EUR 139bn from the ECB, significantly higher than the EUR 116bn of ECB loans Italian banks obtained in the 3-year LTRO last December.¹⁰⁷
- The increase in the use of ECB funds suggested that Italian banks continue to encounter difficulties raising funds in interbank funding markets, and underlines Italian banks' increasing reliance on the ECB for liquidity.
- Largely attributed to the ECB 3-year LTROs, the decline in the Italian government's borrowing costs may not allay depositors' declining confidence in Italian banks, which has fueled deposit flight from Italian banks to fiscally-sound countries such as Germany. Company deposits at Italian banks dropped 12.9% from June 2011 to February.¹⁰⁸
- Italian banks face huge challenges in meeting new EBA capital requirements before June. Bank stress tests undertaken by the EBA last December revealed that Italian banks had the third largest overall capital shortfall amongst EU nations, at EUR 15.4bn.¹⁰⁹

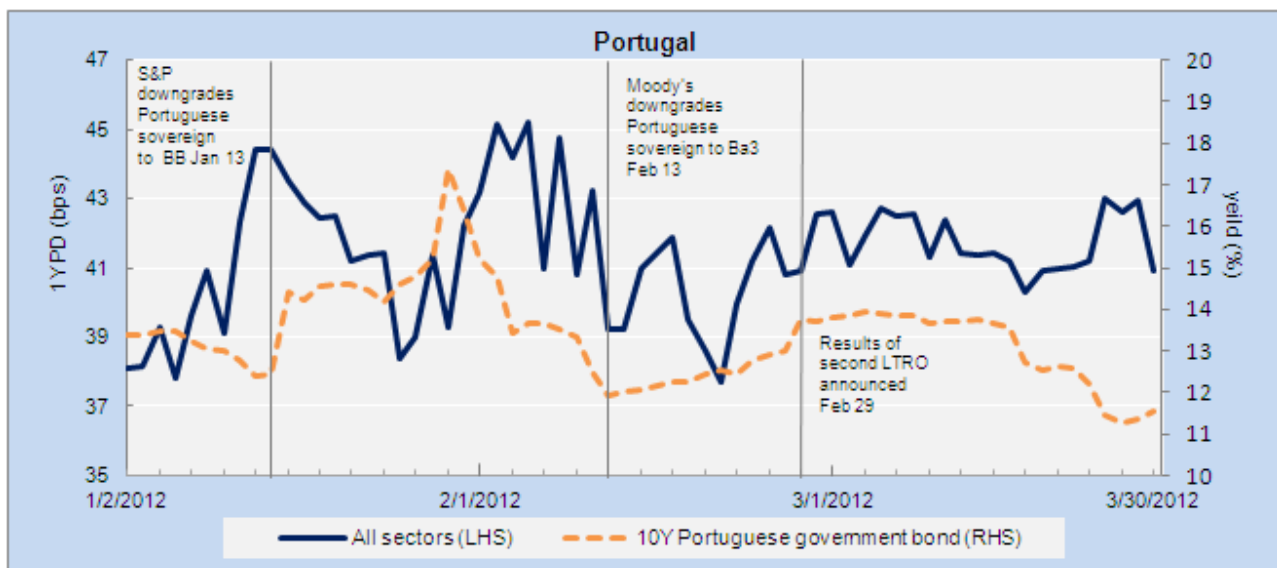
Credit Ratings

- S&P downgraded 34 Italian financial institutions on February 10. S&P believed that its downgrade of Italy's sovereign credit rating in January would impair Italian banks' access to wholesale debt markets.¹¹⁰

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- ⁹⁸Jan 20, 2012, [Monti unveils liberalisation plans](#), The Financial Times.
- ⁹⁹Mar 19, 2012, [The Bank of Greece Report on Monetary Policy 2011-2012](#), 4-traders.
- ¹⁰⁰Mar 16, 2012, [Greece to exit recession "by 2014"](#), Channel News Asia.
- ¹⁰¹Mar 12, 2012, [Italy enters recession, presents headache for leader](#), Business Day.
- ¹⁰²Mar 1, 2012, [Eurozone unemployment continues to rise](#), BBC News.
- ¹⁰³Feb 22, 2012, [ECB Preparing to Close Liquidity Floodgates](#), CNBC.
- ¹⁰⁴Mar 5, 2012, [Banks deposit record 821bn at ECB](#), The Financial Times.
- ¹⁰⁵Jan 14, 2012, [Italy's Credit Rating Is Reduced Two Levels to BBB+ by S&P, Official Says](#), Bloomberg.
- ¹⁰⁶Jan 28, 2012, [Italy and Spain's credit ratings downgraded again](#), The Daily Mail.
- ¹⁰⁷Feb 29, 2012, [Italy banks took 139 bln euros of ECB funds-BOI sources](#), Reuters.
- ¹⁰⁸Feb 24, 2012, [Bank Deposit Flows Show Money Leaking to Germany From Spain](#), Bloomberg.
- ¹⁰⁹Dec 8, 2012, [European Banks Need 115 Billion Euros](#), Spiegel Online International.
- ¹¹⁰Feb 10, 2012, [Italian Banks Downgraded; S.&P. Cites Lending Risk](#), The New York Times.

Portuguese Companies

- The one-year aggregate PD for Portuguese companies fluctuated between 37 and 45bps during Q1. The PD remained high compared to the 29.4bps recorded in May 2011 when the EU and IMF approved a EUR 78bn bailout for the country.
- During Q1, Portugal's economy remained persistently weak, while markets for the nation's sovereign debt remained largely depressed. The government's commitment to austerity brought a modest relief to sovereign debt investors towards the end of Q1, leading to a small rally in Portuguese government bonds. However, the positive effect from this is expected to be offset by an overall economic decline. Against this backdrop, the credit outlook for Portuguese companies continued to be fraught with difficulties.



Economy

- The outlook for the Portuguese economy is bleak as the government implemented austerity measures and concerns about the European debt crisis lingered. The Bank of Portugal has forecasted a deepening recession that will cause the nation's annual GDP to decline by 3.4% during 2012.¹¹¹
- Portugal's high private-sector debt, which has reached a staggering 249% of GDP,¹¹² creates an additional hurdle to the recovery of the Portuguese economy.

Public Finances

- Despite receiving a rescue package in 2011, Portugal's public finances continued to deteriorate in Q1, with the government's debt to GDP ratio expected to increase to 118% this year, from 107% when the nation's bailout was approved in May 2011.¹¹³

Liquidity

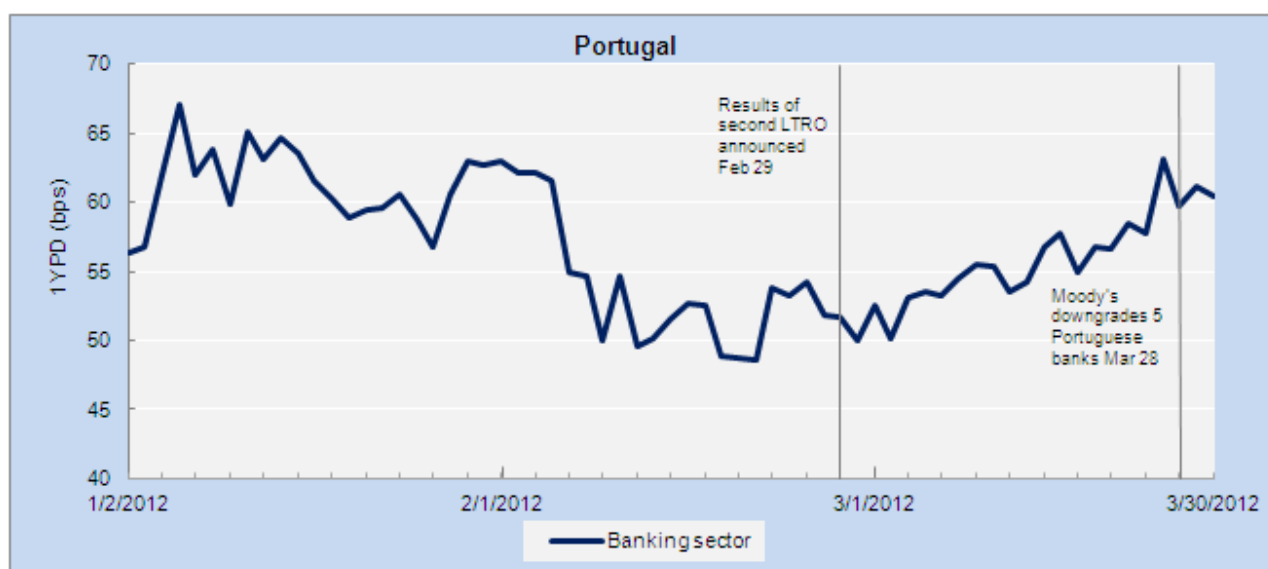
- Portuguese companies faced liquidity strains during Q1, as the government's high cost of borrowing weighed upon Portuguese firms' access to and cost of credit.

Sovereign credit rating

- S&P lowered Portugal's rating to BB on January 14, after the country was downgraded below investment grade separately by Moody's and Fitch in 2011.¹¹⁴ Portugal is now rated below investment grade by all three major global credit rating agencies. In addition, Moody's cut the country's rating by one notch to Ba3 on February 14.¹¹⁵

Portuguese Banks

- The one-year aggregate PD for Portuguese banks remained elevated during Q1, falling from a record high of 71bps last October, when the European debt crisis erupted.
- The credit outlook for Portuguese banks is expected to remain negative, as a combination of poor economic prospects, credit rating downgrades and the ongoing sovereign crisis continue to weigh upon the sector.



Liquidity

- + Liquidity support from the ECB 3-year LTROs has improved the liquidity profiles of Portuguese banks. In Q1, Portuguese banks increased both the amount of central bank funding and the proportion of the 3-year LTRO funds, with ECB borrowing by Portuguese banks increasing to EUR 56.3bn in March and the 3-year funding accounting for almost 90% of overall central bank liquidity provided to Portuguese banks. The ample ECB liquidity could alleviate the financing strain at Portuguese banks at a time when interbank markets remained largely inaccessible.¹¹⁶

Profitability

- According to the Portuguese Association of Banks, the business difficulties that Portuguese banks face have become structural, in part due to increasing bank funding costs as concerns about the European debt crisis remain.¹¹⁷ A combination of relentlessly high Portuguese sovereign yields and a worsening economy is expected to continue to cripple the earnings prospects of Portuguese banks.

Credit Ratings

- On March 28, Moody's downgraded five Portuguese banks due to a continued weakening in the Portuguese economy, slashing the ratings of four banks to Ba3 or lower. After the rating actions, seven leading Portuguese banks were rated below investment grade.¹¹⁸

¹¹¹Mar 29, 2012, [Bank of Portugal Sees Deeper Economic Contraction in 2012](#), Bloomberg.

¹¹²Feb 22, 2012, [Huge private debts pose bigger hurdle for euro zone](#), Reuters.

¹¹³Feb 14, 2012, [Portugal's Debt Efforts May Be Warning for Greece](#), The New York Times.

¹¹⁴Jan 15, 2012, [Portugal's Credit Rating Is Cut to Junk by S&P on Euro Crisis](#), Bloomberg.

¹¹⁵Feb 14, 2012, [Moody's cuts Italy, Spain and Portugal's credit ratings](#), BBC News.

¹¹⁶Apr 9, 2012, [Portugal's domestic banks tap ECB for record amounts of funding](#), The Guardian.

¹¹⁷Feb 6, 2012, [Top Portuguese Financials Plunge Into Red Maelstrom](#), Portugal Daily View.

¹¹⁸Mar 29, 2012, [Moody's downgrades Portuguese banks](#), The Financial Times.

Spanish Companies

- The one-year aggregate PD for Spanish companies rose considerably during Q1, approaching levels not seen since mid-2009.
- Weakening public finances combined with persistent economic woes created an adverse backdrop for the financing and business outlook of Spanish companies. This was further aggravated by a tightening in bank credit during Q1.



Economy

- The Spanish economy continued to weaken in Q1, after shrinking 0.3% in Q4 2011. The Spanish service and manufacturing PMIs continued to hover around 45,^{119,120} indicating a continual contraction in demand in both sectors. The Spanish labor market remained grim as the unemployment rate soared to a record 23.8% in January and is forecasted to rise to 24.3% at some time this year.¹²¹

Political

- Spain's economy has deteriorated under the weight of austerity measures, yet its government is under pressure to step up growth-hurting austerity measures as a result of last December's fiscal compact agreement amongst EU leaders. After the Spanish government announced that it would miss its original deficit target of 4.4% for 2012, EU ministers demanded an increase in Spanish budget cuts. The Spanish government agreed to budget cuts equivalent to 0.5% of GDP from its original 2012 budget on March 13.¹²² Further outside political pressure poses a significant threat to the Spanish economy, as demands for more budget cuts could reinforce a negative feedback loop between Spain's economy and fiscal contraction.

Liquidity

- Spanish sovereign bonds rallied following the ECB's 3-year LTROs, with the yield of the Spanish 10-year bond reaching a record low of 4.85% on March 1, a noticeable decline from the peak of 6.7% reached in Q4 2011. Lower borrowing costs for the Spanish

government provided more supportive financing conditions for Spanish companies. But the improvement was fragile, as evidenced by a continuous surge in Spanish government yields since early March, reaffirming a lack of investor confidence in the country's public finances.

- Strains on credit availability for Spanish companies are likely to persist, as Spanish banks are under pressure to deleverage and recapitalize in order to comply with the EBA's new capital requirements by June. The ECB's reluctance to offer further LTROs also increases the risk that Spanish firms may face diminishing access to credit and higher borrowing costs.¹²³
- Moreover, a large take-up of ECB LTRO liquidity by Spanish banks may not have translated into an alleviation of tight credit conditions in Spain, as the banks have supposedly invested LTRO funds in high-yielding Spanish government bonds through so-called carry trades.¹²⁴

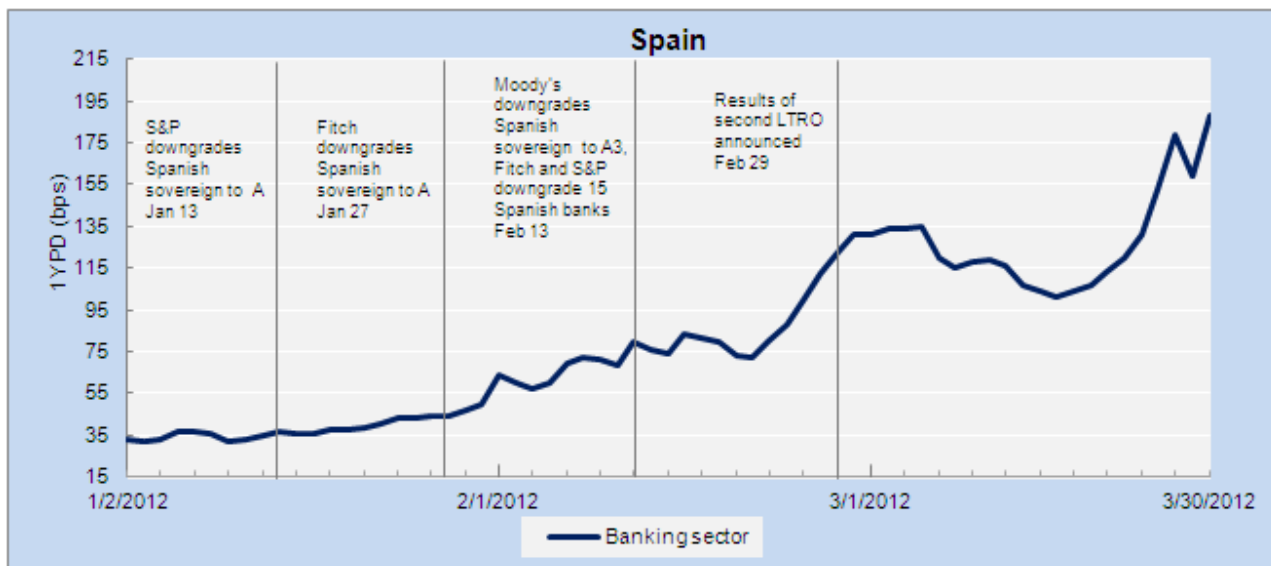
Sovereign Credit Rating

- Spain's credit rating was downgraded two notches to A by S&P[†] and Fitch on January 13 and January 27 respectively,^{125,126} as the country's public finances deteriorated and vulnerabilities to the financial market increased.

[†]Spain was subsequently downgraded an additional notch to BBB+ by S&P on April 26.

Spanish Banks

- The one-year aggregate PD for Spanish banks increased significantly during Q1, to a historical record high of 187.9bps on March 31.
- The ECB's LTROs boosted the liquidity profile of Spanish banks; however the country's crumbling property market and worsening public finances are expected to remain a major source of problems for Spanish lenders.



Regulatory

- + The Spanish government ordered Spanish banks to raise provisions for non-performing property loans by EUR 50bn, but eased the banks' compliance burden by allowing the banks to use capital in excess of Basel II requirements to meet part of the new provisioning charges.¹²⁷

Liquidity

- + Spanish banks' borrowings from the ECB soared to a record EUR 316.3bn in March,¹²⁸ as Spanish banks borrowed EUR 315.3bn in the ECB's 3-year LTROs.¹²⁹
- The increase in the use of ECB funds suggested that Spanish banks continue to encounter difficulties raising funds in interbank funding markets, and underlines Spanish banks' increasing reliance on the ECB for liquidity.
- As Spain's public finances worsened and depositor confidence fell, deposit flight at Spanish banks could well continue in the future. Such flights caused the banks' deposit base to shrink 5% from July 2011 to March 2012.¹³⁰ A further reduction in deposits would be a major strain on the liquidity profile of Spanish banks.
- Stress tests completed by the EBA last December showed Spanish banks had a collective capital need of EUR 26.2bn,¹³¹ the second highest in the EU, illustrating the difficulties Spanish banks face complying with the EBA's new capital requirements by June.

Asset Quality

- Spanish banks used a large part of their LTRO funds to engage in carry trades in eu-rozone sovereign debt,¹³² exposing the lenders to increased volatility as bond spreads widen.
- Falling property prices are expected to remain a major encumbrance on the balance sheets of Spanish banks. The Spanish government's increased provisioning requirements reflected a continuing weakening in the Spanish property, with home prices tumbling by a record amount during Q4. Increased property loan provisions could lead to fire sales that would send property prices in a downward spiral,¹³³ further impairing the balance sheets of Spanish banks.

Credit Ratings

- On February 13, 15 Spanish financial institutions were downgraded by S&P and 4 major Spanish banks were downgraded by Fitch, following earlier downgrades of the Spanish sovereign rating by the two ratings agencies.¹³⁴

¹¹⁹Apr 2, 2012, [Spain Manufacturing PMI](http://www.markiteconomics.com), Markit, <http://www.markiteconomics.com>

¹²⁰Apr 4, 2012, [Spain Services PMI](http://www.markiteconomics.com), Markit, <http://www.markiteconomics.com>

¹²¹Mar 2, 2012, [Spain defies EU over deficit rules](#), The Financial Times.

¹²²Mar 13, 2012, [EU Budget Deal May Leave Spain Struggling to Meet Deficit-Reduction Goal](#), Bloomberg.

¹²³Feb 22, 2012, [ECB Preparing to Close Liquidity Floodgates](#), CNBC.

¹²⁴Mar 5, 2012, [Banks deposit record 821bn at ECB](#), The Financial Times.

¹²⁵Jan 16, 2012, [Spain's Credit Rating Lowered Two Notches With Negative Outlook](#), Bloomberg.

¹²⁶Jan 28, 2012, [Italy and Spain's credit ratings downgraded again](#), The Daily Mail.

¹²⁷Feb 7, 2012, [Spanish banks race to meet latest government rules](#), The Financial Times.

¹²⁸Mar 15, 2012, [Spain's banks ECB borrowings at new high](#), RTE News.

¹²⁹SPLBNETL Index, Source: Bloomberg.

¹³⁰Feb 24, 2012, [Bank Deposit Flows Show Money Leaking to Germany From Spain: Euro Credit](#), Bloomberg.

¹³¹Dec 8, 2012, [European Banks Need 115 Billion Euros](#), Spiegel Online International.

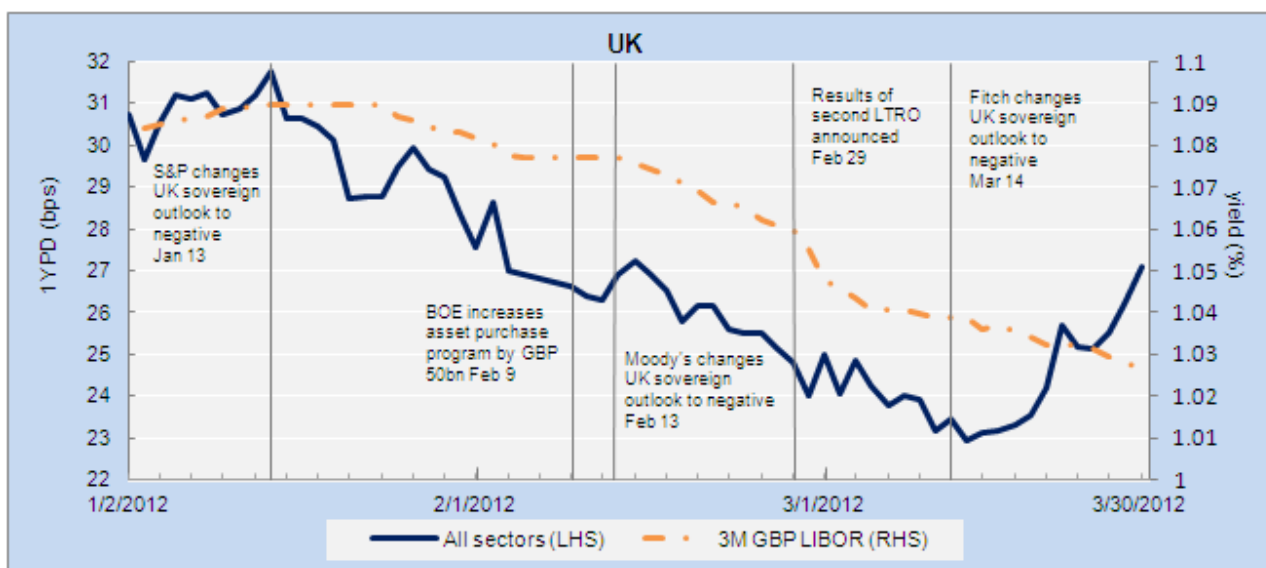
¹³²Apr, 2012, [Aggregated balance sheet of euro area monetary financial institutions](#), ECB

¹³³Mar 15, 2012, [Spain house price updates](#), Bloomberg.

¹³⁴Feb 13, 2012, [S&P, Fitch downgrade Spain financial institutions](#), Bloomberg.

UK Companies

- The one-year aggregate PD for UK companies trended downwards during most of Q1, registering a notable decline from a high of 35.7bps recorded in Q4, to a low of 22.9bps on March 11. This was the lowest level recorded since August 2005. However, the PD for UK companies edged up over the last few days of Q1.
- Q1 saw a modest improvement in the credit outlook of UK firms, supported by some tentative signs of improvements in the UK economy, and a temporary easing in the European sovereign debt crisis. However, the credit outlook of UK companies is uncertain, as the economic recovery remains on a fragile footing and companies continue to face tight credit conditions.



Economy

- Following a quarterly GDP contraction of 0.3% over Q4, the UK's economic outlook in Q1 continued to be negative. Although economic activity in major sectors picked up, with the PMI remaining above the 50 threshold in both the manufacturing and service sectors,^{135,136} fundamental challenges for UK companies continued. The unemployment rate in the UK increased to 8.4% during 2011, the highest in 15 years, while disposable income levels fell by 1.2%.¹³⁷ Moreover, an upsurge in energy prices is weighing upon consumer spending power and adds to cost pressures facing UK firms. Despite a Government strategy to promote economic recovery through increased exports to emerging countries, the risk of protracted economic weakness continues to linger, with the unemployment rate predicted to rise further during 2012.¹³⁸

Monetary

- + The BOE continued with its accommodative monetary policy, with the official bank rate remaining at a record low of 0.5% throughout the quarter.¹³⁹ In addition, The BOE increased its asset purchase program by GBP 50bn to GBP 325bn on February 9.¹⁴⁰

Liquidity

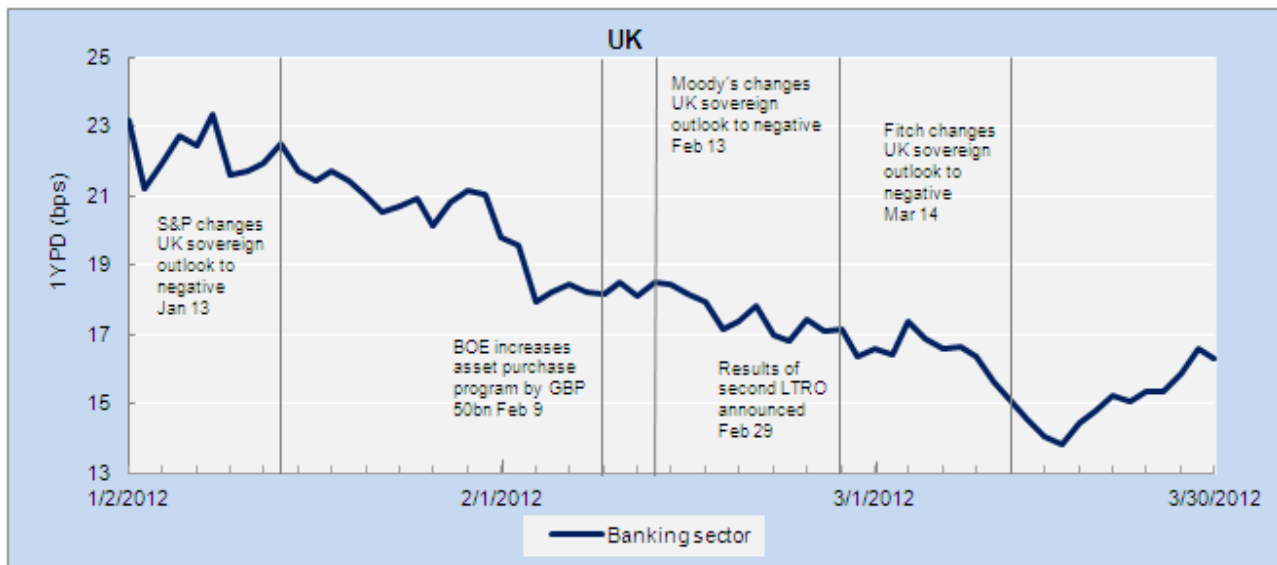
- Despite the BOE's accommodative monetary policy, UK companies, especially small and medium sized firms, are still facing difficulties in obtaining credit. Risk aversion is still a prevalent issue among banks, affecting the amount of loans made available in the economy.^{141,142} UK companies have not been able to capitalize on falling benchmark interest rates, due to credit rationing.

Public Finances and Sovereign Credit Rating

- Despite spending cuts by the Government, the outlook for the UK's public finances is negative overall. Although a budget deficit to GDP ratio of 8.25% and a public debt to GDP ratio of nearly 80% are low compared to more indebted sovereigns, the UK government could struggle to restore its fiscal strength as the economy slows. The outlook for the UK's sovereign credit rating was downgraded to negative from stable by both Moody's and Fitch, on February 13 and March 15 respectively.

UK Banks

- The one-year aggregate PD for UK banks decreased marginally in Q1, ending the quarter with at the lowest level since the outbreak of the European debt crisis in early 2010.
- Despite a lacklustre recovery of the economy and a deteriorating housing market, the credit outlook for UK banks improved slightly during Q1, as the BOE's asset purchase program provided some relief to the liquidity stresses facing UK banks.



Liquidity

- + Liquidity strains in the GBP wholesale interbank market eased modestly during Q1. This was reflected in the GBP 3-month LIBOR rate, which fell to 1.02% from a level of 1.08% recorded on January 10, the highest on record since early 2010.

Profitability

- UK banks' profitability continued to be constrained by subdued consumer and business loan demand during Q1, as deleveraging and cash-hoarding remained a priority for consumers and businesses.¹⁴³

Asset Quality

- A depressed economy, combined with the lingering risk of a re-escalation of the European debt crisis, could exacerbate rising loan delinquency rates at UK banks. The quarterly Credit Conditions Survey released by the BOE on March 29 predicted a further rise in default rates by large and medium-sized companies following two consecutive quarters of increasing default rates.¹⁴⁴
- Another risk to the asset quality of UK banks is a continued weakness in the UK housing market. The UK house prices showed some signs of an upturn in March, but little evidence of a solid and robust recovery in house prices have emerged.¹⁴⁵

- ¹³⁵Apr 2, 2012, [UK Manufacturing PMI](http://www.markiteconomics.com), Markit, <http://www.markiteconomics.com>
- ¹³⁶Apr 4, 2012, [UK Services PMI](http://www.markiteconomics.com), Markit, <http://www.markiteconomics.com>
- ¹³⁷Mar 28, 2012, [Britons See Disposable Incomes Plunge Most Since 1977](#), Bloomberg.
- ¹³⁸Apr 10, 2012, [Unemployment will rise by 100,000 by the end of summer](#), The Information Daily.
- ¹³⁹Apr 5, 2012, [Bank of England maintains Bank Rate at 0.5%](#), Bank of England.
- ¹⁴⁰Feb 9, 2012, [Bank of England injects another 50bn into UK economy](#), BBC News.
- ¹⁴¹Feb 9, 2012, [Osborne drops targets for credit easing deal](#), The Financial Times.
- ¹⁴²Mar 7, 2012, [Banks still starving firms of capital, warns Vince Cable](#), The Guardian.
- ¹⁴³Jan 31, 2012, [U.K. Consumers Repay Debt, Money Supply Shrinks](#), The Wall Street Journal.
- ¹⁴⁴Mar 29, 2012, [Credit Conditions Survey](http://www.bankofengland.co.uk), Bank of England, <http://www.bankofengland.co.uk>
- ¹⁴⁵Apr 10, 2012, [Signs of life in Housing Market](#), The Financial Times.

Appendices

The appendices provide readers with a comprehensive overview of various outputs that are produced by RMI's operational probability of default (PD) system. While the PD system provides default forecasts at horizons ranging from one month to two years, here only one year PDs are reported. In addition to the PD produced by the RMI 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 1-year aggregate PD where the aggregations are by region, economy and sector. These are given as month-end data, and are based on RMI's default forecast model calibrated on April 12, 2012, using data up to March 31, 2012. For a detailed description of RMI'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 mean and standard deviation of PDs for firms within ten industry sectors at the end of Q4 2011 and Q1 2012. Note that the statistics are for firms that have a PD at both dates so that consistent comparisons can be made. The mean and standard deviation of the difference of individual PD is also given. The industry sectors are based on the Level I Bloomberg Industry Classification.

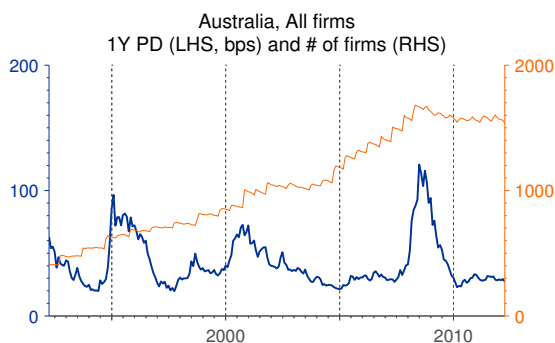
Appendix [B](#) gives 1-year aggregate PD by the four regions of Asia-Pacific developed, Asia-Pacific emerging, Western Europe and North America. The top two graphs of each regions show the time series of the distribution of Probability of Default implied Ratings (PDiR). The PDiR are described in the last section of Appendix [D](#). The different color 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 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.

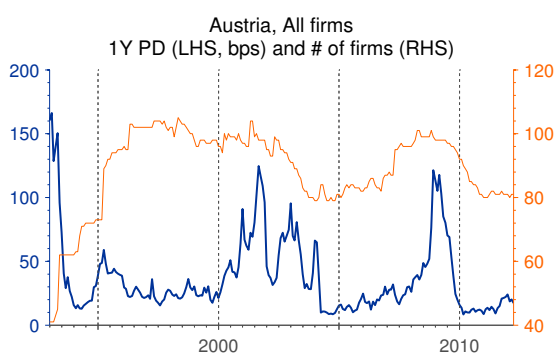
Appendix [C](#) provides common macroeconomic, corporate credit and sovereign risk indicators for each economy along with the 1-year aggregate PD for financial and non-financial firms. The graphs on the left give historical context to the values, and the table on the right give the data from the previous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

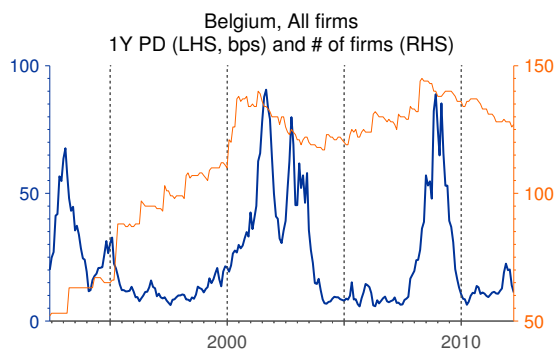
A PD by economies



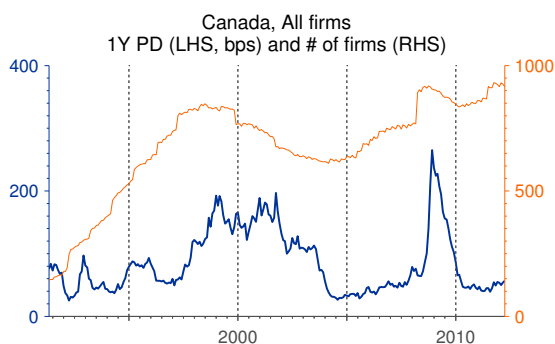
Australia	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	147	47.2	143.3	49.0	179.8	1.8	109.9
Basic Materials	672	21.4	49.2	19.2	47.8	-2.2	20.6
Communications	73	42.1	95.0	35.5	73.6	-6.6	50.3
Consumer Cyclical	78	35.1	65.0	31.9	67.9	-3.1	21.6
Consumer Non-cyclical	175	37.0	139.5	40.2	187.8	3.2	65.7
Diversified	6	12.8	14.7	13.9	14.7	1.1	3.1
Energy	192	23.8	51.9	20.3	46.0	-3.5	36.8
Industrial	117	26.7	40.9	33.7	75.3	7.1	50.7
Technology	41	26.3	34.5	25.5	34.5	-0.9	20.0
Utilities	14	8.3	9.3	7.1	12.2	-1.2	7.7



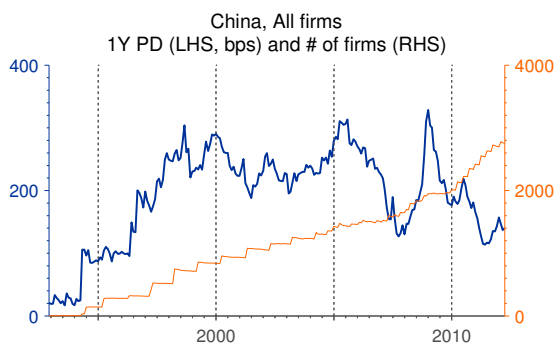
Austria	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	21	22.3	20.9	20.9	29.6	-1.4	32.6
Basic Materials	3	12.1	11.7	9.3	11.2	-2.8	2.8
Communications	1	4.7	-	4.8	-	0.1	-
Consumer Cyclical	11	29.5	42.3	16.7	21.3	-12.8	21.3
Consumer Non-cyclical	6	27.8	41.1	15.8	19.3	-12.0	22.2
Energy	3	9.1	4.4	5.4	2.3	-3.7	2.6
Industrial	16	30.4	33.2	20.6	25.4	-9.8	10.9
Technology	5	35.3	47.4	23.8	24.3	-11.6	24.3
Utilities	1	6.4	-	6.8	-	0.3	-



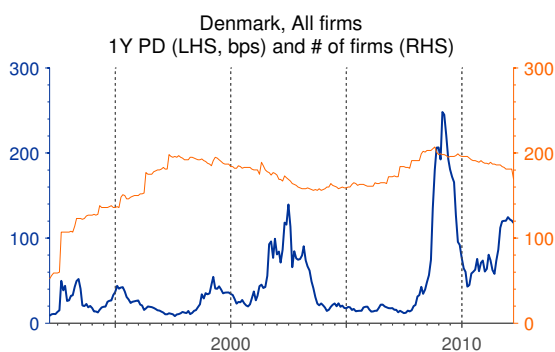
Belgium	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	30	28.1	90.9	11.6	32.2	-16.5	60.7
Basic Materials	6	10.6	8.5	7.0	5.2	-3.7	4.1
Communications	8	13.2	11.3	17.6	28.0	4.4	21.5
Consumer Cyclical	5	49.8	77.2	38.6	54.8	-11.1	23.9
Consumer Non-cyclical	24	7.3	10.3	5.9	10.4	-1.4	2.9
Diversified	6	2.6	3.0	1.2	1.3	-1.4	1.7
Industrial	22	16.9	22.3	7.4	8.4	-9.5	16.1
Technology	6	19.3	14.0	9.9	9.5	-9.4	9.7



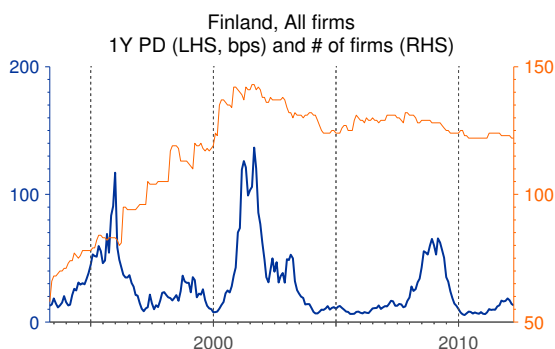
Canada	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	101	26.7	80.0	17.3	28.6	-9.4	74.8
Basic Materials	275	36.2	57.3	40.8	95.8	4.6	85.6
Communications	52	140.7	631.6	134.6	605.4	-6.0	55.6
Consumer Cyclical	64	37.3	68.4	65.5	195.2	28.2	161.3
Consumer Non-cyclical	103	76.4	243.3	74.6	224.3	-1.8	132.8
Diversified	4	48.8	57.3	47.5	57.8	-1.3	5.1
Energy	158	47.8	129.3	74.5	333.5	26.7	236.8
Industrial	76	74.8	168.5	69.9	231.0	-4.9	184.1
Technology	29	86.0	186.8	65.4	110.0	-20.6	114.6
Utilities	11	5.9	7.4	4.8	7.2	-1.2	3.2



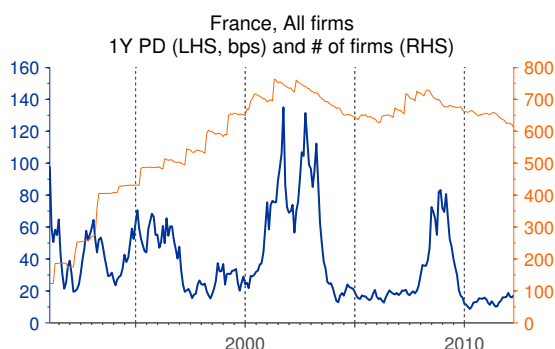
China	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	199	163.6	221.4	137.9	149.8	-25.6	117.4
Basic Materials	333	196.8	271.0	179.8	194.0	-17.0	104.5
Communications	142	111.1	195.7	93.3	140.2	-17.8	92.2
Consumer Cyclical	473	149.0	161.8	141.2	146.6	-7.8	57.2
Consumer Non-cyclical	427	123.4	182.4	120.9	168.7	-2.5	69.8
Diversified	29	203.7	132.8	195.6	134.8	-8.1	54.6
Energy	76	227.9	625.5	148.0	319.0	-79.9	484.8
Industrial	741	154.8	235.1	147.1	213.3	-7.7	105.3
Technology	151	110.1	216.3	103.7	176.7	-6.4	81.2
Utilities	77	239.9	251.2	215.4	181.0	-24.5	125.6



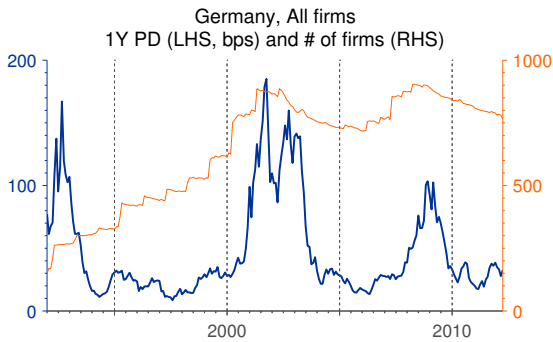
Denmark	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	60	146.0	238.2	126.8	231.3	-19.2	76.9
Basic Materials	1	19.9	-	24.5	-	4.7	-
Communications	9	85.6	121.2	63.8	82.2	-21.8	41.0
Consumer Cyclical	16	105.7	100.3	93.3	85.8	-12.4	41.6
Consumer Non-cyclical	22	33.6	54.5	34.3	68.8	0.7	19.8
Industrial	35	208.6	366.4	223.1	582.6	14.6	330.9
Technology	11	76.5	74.6	82.8	78.7	6.3	29.8



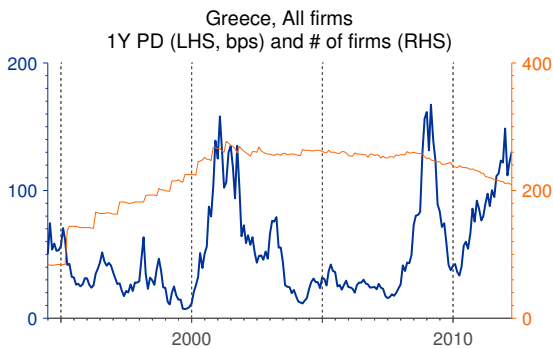
Finland	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	13	31.6	45.5	28.7	50.4	-2.9	36.6
Basic Materials	8	21.7	15.7	13.6	12.0	-8.1	11.0
Communications	14	15.8	14.3	11.5	12.2	-4.3	7.4
Consumer Cyclical	7	17.9	27.1	7.6	7.0	-10.3	21.4
Consumer Non-cyclical	15	19.8	21.3	13.4	11.9	-6.4	9.8
Industrial	36	15.6	14.8	11.3	10.5	-4.2	7.0
Technology	13	20.6	24.9	11.5	12.6	-9.1	18.7



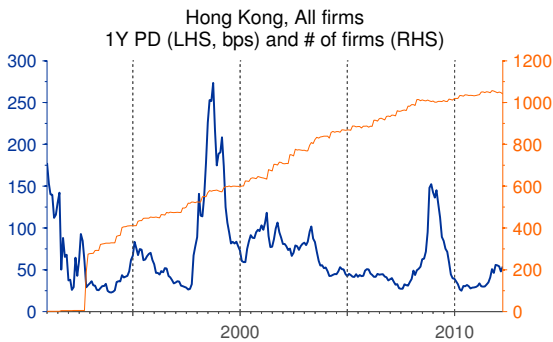
France	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	100	15.5	20.0	14.3	26.3	-1.2	10.9
Basic Materials	18	18.4	24.6	20.1	24.3	1.7	4.9
Communications	71	24.0	47.5	30.2	94.9	6.2	80.2
Consumer Cyclical	79	18.2	21.6	17.3	21.2	-0.9	9.2
Consumer Non-cyclical	118	11.8	21.4	9.6	18.5	-2.2	8.5
Diversified	7	20.1	24.8	17.3	23.2	-2.8	2.3
Energy	14	18.6	19.1	23.4	31.2	4.8	13.7
Industrial	101	14.6	17.6	13.7	17.6	-0.9	12.1
Technology	76	32.7	120.4	23.0	44.8	-9.8	81.4
Utilities	7	24.3	41.8	22.0	31.4	-2.3	12.3



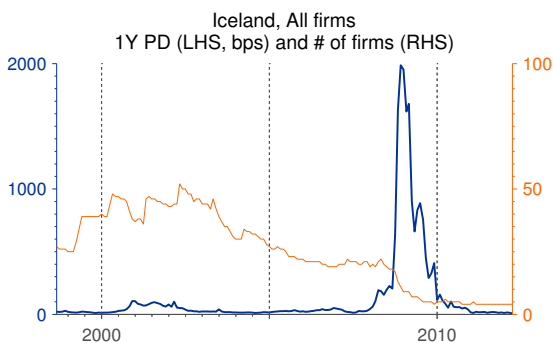
Germany	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	184	25.1	34.9	22.6	36.4	-2.4	26.8
Basic Materials	23	28.0	82.4	19.1	54.1	-8.9	28.3
Communications	72	37.8	100.1	28.1	69.2	-9.7	39.7
Consumer Cyclical	97	26.4	48.1	35.3	176.9	8.9	142.6
Consumer Non-cyclical	102	39.5	142.1	27.2	94.0	-12.3	53.7
Diversified	4	70.1	102.4	53.5	71.4	-16.6	33.5
Energy	22	126.0	306.8	82.2	127.8	-43.8	231.9
Industrial	148	31.5	80.6	37.6	176.8	6.1	130.4
Technology	81	20.9	30.3	16.9	34.0	-4.0	18.4
Utilities	8	4.9	4.4	4.0	3.2	-0.9	3.0



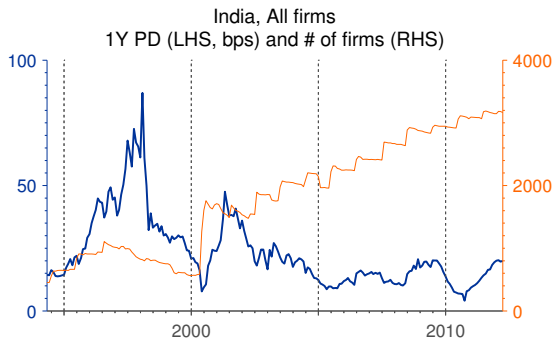
Greece	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	18	206.8	249.5	193.3	270.1	-13.5	272.4
Basic Materials	8	50.5	41.7	61.9	66.9	11.3	30.5
Communications	13	135.4	135.5	169.8	130.3	34.4	114.3
Consumer Cyclical	38	123.1	278.6	160.4	360.1	37.3	117.3
Consumer Non-cyclical	34	133.6	284.0	120.4	251.6	-13.1	140.1
Diversified	2	35.4	30.4	60.2	64.7	24.8	34.4
Energy	3	23.0	19.4	29.0	23.8	6.0	5.6
Industrial	64	201.4	393.8	123.1	166.7	-78.3	352.9
Technology	8	92.6	78.2	81.5	59.7	-11.1	65.6
Utilities	1	9.7	-	7.1	-	-2.6	-



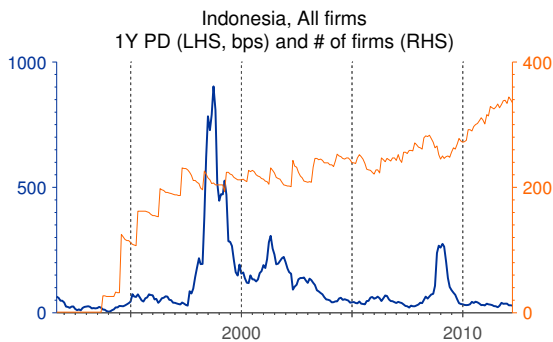
Hong Kong	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	213	41.3	59.3	36.1	56.0	-5.2	27.2
Basic Materials	53	92.5	149.5	91.1	141.1	-1.4	60.3
Communications	85	47.6	100.9	52.5	100.3	4.9	46.2
Consumer Cyclical	240	48.3	76.7	45.1	74.4	-3.1	39.4
Consumer Non-cyclical	113	51.1	102.2	39.7	66.0	-11.4	48.8
Diversified	39	43.6	37.9	40.0	35.0	-3.6	18.1
Energy	35	144.5	261.7	107.8	131.3	-36.7	165.4
Industrial	173	58.2	80.7	66.9	115.9	8.7	70.6
Technology	55	68.3	86.7	94.7	288.0	26.4	272.3
Utilities	14	27.5	40.9	29.3	50.8	1.7	15.8



Iceland	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Consumer Non-cyclical	1	11.4	-	9.2	-	-2.3	-



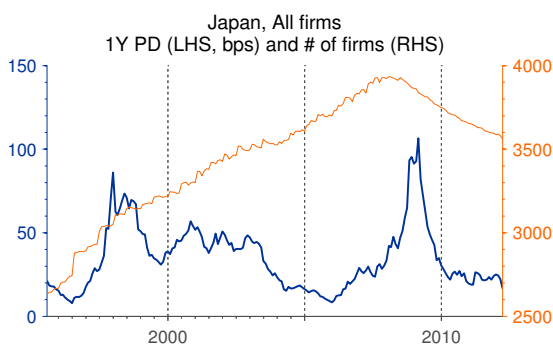
India	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	446	25.6	66.2	20.8	34.6	-4.7	50.9
Basic Materials	449	19.6	29.8	21.2	32.8	1.6	14.2
Communications	120	19.4	28.7	21.3	31.2	2.0	11.3
Consumer Cyclical	629	18.2	20.8	19.8	23.6	1.7	16.1
Consumer Non-cyclical	486	17.0	29.6	17.5	28.6	0.5	12.1
Diversified	21	24.6	46.1	19.0	25.6	-5.6	21.8
Energy	54	26.3	32.5	25.1	28.4	-1.2	9.9
Industrial	667	20.0	25.5	20.5	26.5	0.5	12.1
Technology	204	17.7	30.6	17.6	27.7	-0.1	13.3
Utilities	32	28.0	55.4	23.8	42.3	-4.3	15.2



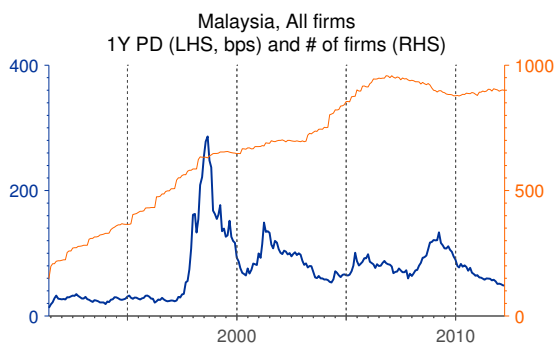
Indonesia	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	80	63.1	81.3	49.4	62.8	-13.7	28.1
Basic Materials	33	31.1	35.6	25.7	29.0	-5.4	14.5
Communications	16	24.8	24.1	21.9	29.4	-2.9	13.3
Consumer Cyclical	53	22.3	20.0	18.2	18.1	-4.1	7.3
Consumer Non-cyclical	55	20.9	23.4	15.5	16.9	-5.4	9.3
Energy	20	41.0	48.2	36.8	46.6	-4.2	18.3
Industrial	46	31.1	49.0	25.1	41.3	-6.0	15.3
Technology	3	4.0	3.5	4.2	3.6	0.1	0.6



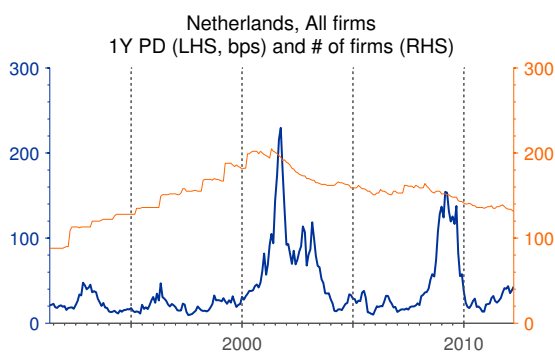
Italy	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	55	54.4	78.2	48.2	61.8	-6.1	37.6
Basic Materials	6	75.9	111.8	61.6	82.0	-14.3	29.9
Communications	29	19.2	17.1	20.8	15.4	1.6	16.0
Consumer Cyclical	42	26.1	31.2	27.9	35.4	1.8	38.9
Consumer Non-cyclical	31	21.9	38.2	25.9	42.9	4.0	8.8
Diversified	1	19.0	-	12.4	-	-6.6	-
Energy	12	15.5	14.5	12.0	7.5	-3.4	12.5
Industrial	49	16.6	30.7	24.2	65.0	7.6	36.9
Technology	11	29.6	33.3	33.7	36.1	4.2	6.7
Utilities	11	13.2	9.8	19.6	12.8	6.5	5.1



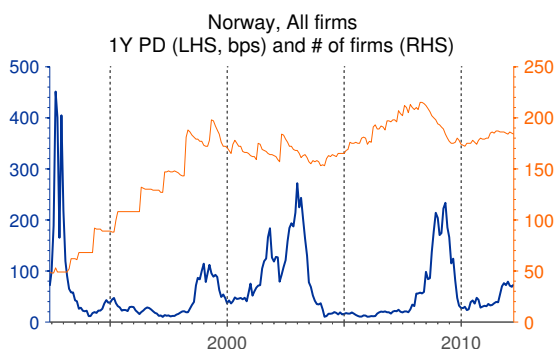
Japan	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	322	47.1	52.4	30.3	37.0	-16.8	31.8
Basic Materials	246	23.7	22.4	16.4	20.2	-7.3	10.2
Communications	247	20.3	31.9	14.3	28.4	-6.0	14.7
Consumer Cyclical	878	20.7	27.6	13.9	22.9	-6.8	13.7
Consumer Non-cyclical	569	14.9	28.8	10.4	25.6	-4.5	13.3
Energy	15	34.9	30.8	34.9	47.5	0.1	31.0
Industrial	979	27.0	33.9	18.3	24.8	-8.7	16.4
Technology	253	20.1	33.6	15.1	31.8	-5.1	14.8
Utilities	23	61.4	160.7	34.7	66.6	-26.7	97.2



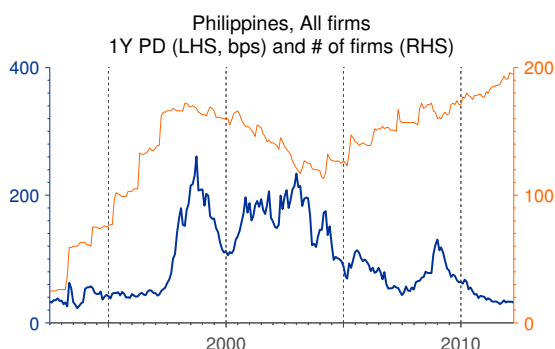
Malaysia	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	125	44.4	67.7	39.4	44.6	-4.9	42.7
Basic Materials	65	56.9	59.4	62.4	75.5	5.5	27.0
Communications	34	36.1	51.3	33.6	45.2	-2.5	24.9
Consumer Cyclical	119	51.9	71.3	50.2	76.5	-1.7	20.5
Consumer Non-cyclical	144	34.8	55.7	33.7	54.1	-1.1	30.7
Diversified	21	27.5	23.3	28.1	27.3	0.7	6.9
Energy	21	38.6	53.9	44.1	52.1	5.5	15.7
Industrial	277	63.8	95.6	60.6	81.6	-3.2	36.2
Technology	62	71.3	144.0	54.1	86.4	-17.2	70.2
Utilities	4	8.5	6.0	8.6	6.1	0.2	0.3



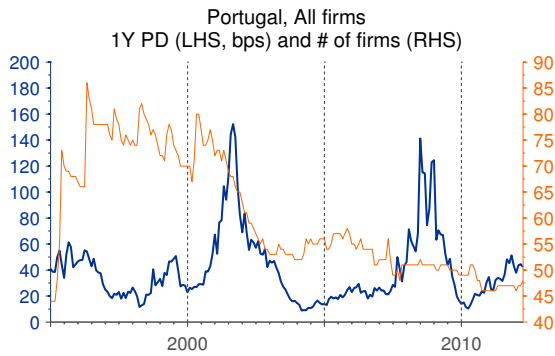
Netherlands	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	16	34.1	44.9	44.1	62.8	10.0	28.3
Basic Materials	3	21.1	16.2	12.8	10.4	-8.3	7.7
Communications	9	84.4	213.6	49.2	108.1	-35.2	106.7
Consumer Cyclical	9	258.2	742.6	223.6	640.3	-34.7	102.3
Consumer Non-cyclical	26	20.8	28.9	17.2	21.6	-3.7	12.3
Diversified	1	1.8	-	2.0	-	0.2	-
Energy	4	2.5	2.4	3.7	3.9	1.1	2.5
Industrial	31	17.7	18.9	20.1	23.9	2.4	7.2
Technology	14	25.6	30.8	30.5	52.2	4.8	51.2



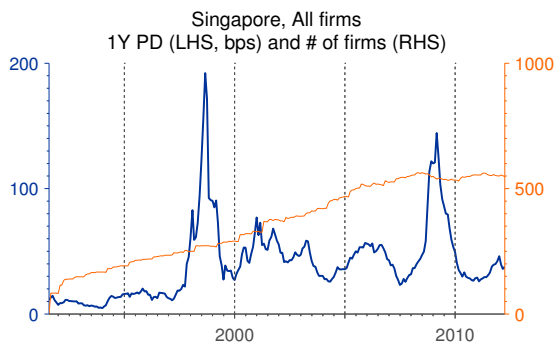
Norway	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	32	63.1	60.8	54.9	42.8	-8.1	42.6
Basic Materials	4	141.8	138.9	64.1	86.9	-77.7	73.7
Communications	7	29.9	18.2	18.5	10.7	-11.5	12.4
Consumer Cyclical	4	62.1	66.6	44.2	49.3	-17.9	25.6
Consumer Non-cyclical	33	83.0	139.4	86.1	172.7	3.1	155.3
Energy	25	81.2	103.6	62.1	97.6	-19.1	45.8
Industrial	49	105.1	316.6	92.2	290.1	-12.9	61.5
Technology	11	79.8	122.5	113.2	234.7	33.4	127.3
Utilities	1	6.4	-	5.8	-	-0.6	-



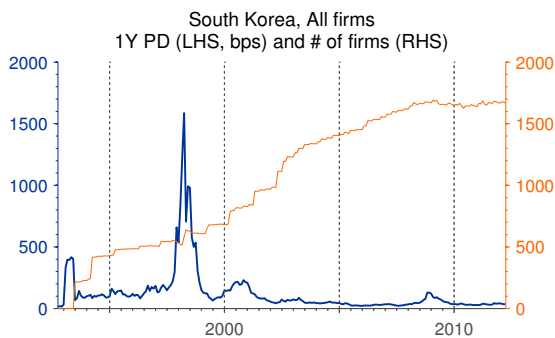
Philippines	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	63	51.2	98.4	50.7	141.2	-0.5	53.3
Basic Materials	18	20.0	25.3	19.3	23.1	-0.7	14.2
Communications	10	34.5	29.6	31.5	28.7	-3.0	14.2
Consumer Cyclical	13	34.4	60.4	16.0	19.8	-18.4	46.7
Consumer Non-cyclical	24	31.1	42.8	25.6	32.1	-5.5	16.7
Diversified	17	24.4	28.8	24.2	25.9	-0.2	10.8
Energy	9	7.0	10.7	8.7	15.1	1.7	4.5
Industrial	10	33.6	44.9	35.3	39.4	1.7	25.6
Utilities	7	9.3	3.7	11.9	6.0	2.5	6.9



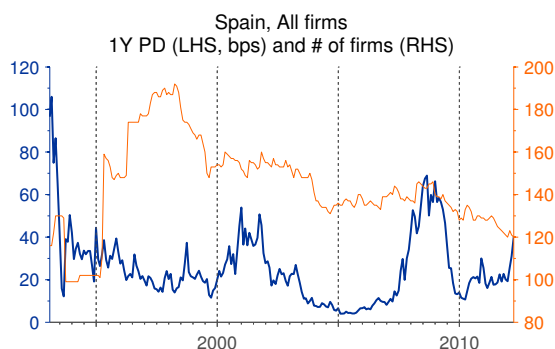
Portugal	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	3	61.8	13.6	64.4	36.9	2.6	28.1
Basic Materials	5	8.8	7.1	9.5	7.0	0.7	0.9
Communications	6	38.9	35.7	51.5	47.3	12.6	19.8
Consumer Cyclical	6	58.0	50.3	66.3	70.4	8.3	23.9
Consumer Non-cyclical	3	27.3	38.9	21.1	29.8	-6.2	9.2
Industrial	5	35.5	21.3	31.8	17.6	-3.8	7.0
Technology	1	10.9	-	7.5	-	-3.3	-
Utilities	1	3.1	-	3.2	-	0.1	-



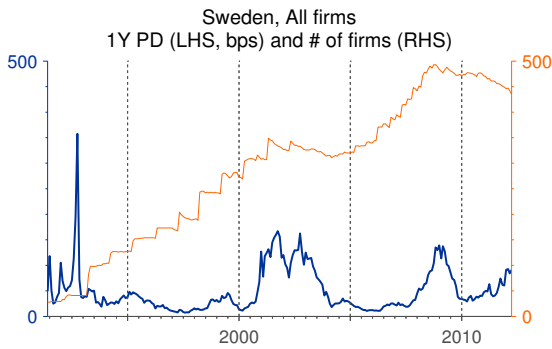
Singapore	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	86	20.9	33.8	17.2	30.6	-3.6	13.5
Basic Materials	29	64.8	73.1	51.6	53.7	-13.2	45.7
Communications	25	39.1	46.8	36.7	41.8	-2.4	32.9
Consumer Cyclical	74	40.5	77.1	33.0	56.6	-7.4	68.0
Consumer Non-cyclical	68	28.4	40.2	24.0	33.4	-4.5	17.4
Diversified	9	18.6	21.2	8.4	9.2	-10.2	13.2
Energy	26	57.2	60.1	45.5	48.1	-11.7	39.1
Industrial	182	66.9	165.2	52.2	104.5	-14.7	142.3
Technology	24	41.5	43.4	34.5	36.3	-7.0	13.3



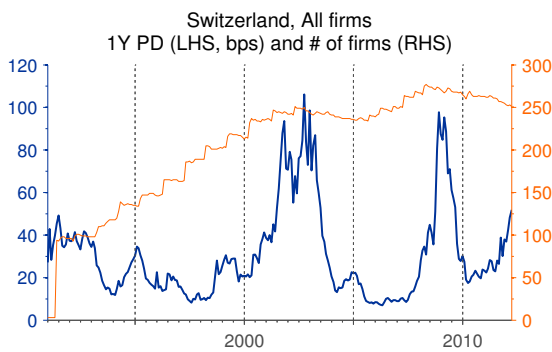
South Korea	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	111	55.9	64.8	46.7	60.5	-9.2	37.3
Basic Materials	171	37.8	49.4	32.4	53.1	-5.4	26.4
Communications	176	34.6	75.8	32.6	80.3	-2.0	42.7
Consumer Cyclical	246	35.5	40.3	34.2	63.2	-1.3	39.7
Consumer Non-cyclical	217	20.0	25.6	20.4	43.3	0.4	33.2
Diversified	29	20.5	40.8	13.5	28.5	-7.0	22.0
Energy	6	41.0	59.2	29.4	29.8	-11.6	34.7
Industrial	468	49.2	72.3	39.4	70.3	-9.8	38.0
Technology	189	40.1	69.7	46.2	158.6	6.1	136.7
Utilities	16	26.4	24.0	24.9	20.0	-1.5	10.5



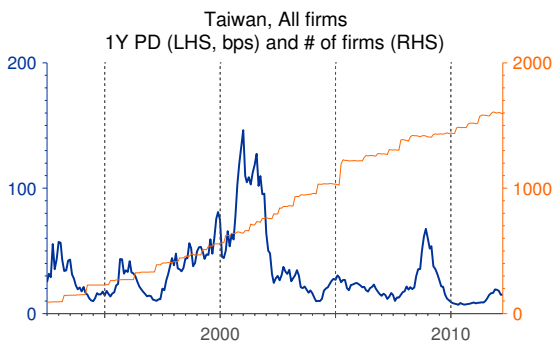
Spain	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	27	31.5	42.4	92.2	270.6	60.7	234.5
Basic Materials	6	11.8	11.4	27.8	43.6	15.9	32.5
Communications	7	17.9	20.2	20.6	24.4	2.6	9.7
Consumer Cyclical	10	16.8	13.9	22.8	19.1	6.0	9.4
Consumer Non-cyclical	22	17.9	36.0	20.9	36.0	3.0	23.9
Energy	2	2.4	0.8	6.2	0.4	3.8	0.4
Industrial	22	17.9	15.6	28.1	29.1	10.1	19.3
Technology	2	14.4	17.8	28.6	38.7	14.2	20.9
Utilities	4	3.1	1.2	4.5	1.2	1.4	1.1



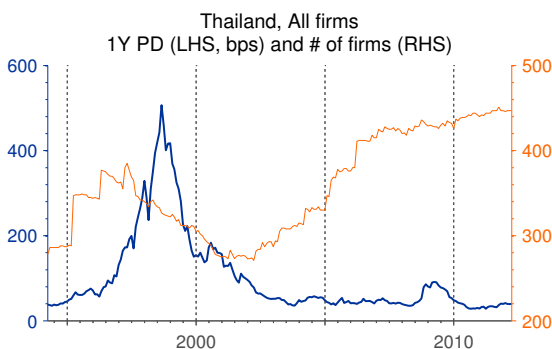
Sweden	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	52	79.5	188.1	81.5	245.4	2.0	185.9
Basic Materials	24	136.3	360.9	82.3	131.2	-54.0	241.7
Communications	44	109.3	182.6	214.4	973.9	105.1	873.5
Consumer Cyclical	49	60.7	96.2	73.0	225.1	12.3	171.1
Consumer Non-cyclical	95	88.6	279.9	86.1	301.2	-2.4	308.5
Diversified	5	22.1	36.0	12.8	14.3	-9.3	24.3
Energy	11	71.8	111.0	49.7	49.0	-22.1	78.5
Industrial	96	90.1	178.4	89.3	237.6	-0.8	122.9
Technology	37	65.4	171.9	65.2	163.5	-0.3	178.7



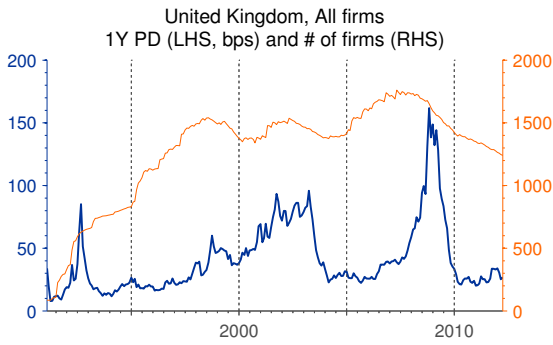
Switzerland	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	61	29.5	57.6	48.8	143.2	19.4	129.0
Basic Materials	16	42.5	85.1	42.1	87.2	-0.4	10.0
Communications	12	67.1	132.1	81.3	167.5	14.2	64.9
Consumer Cyclical	21	46.5	82.1	57.0	128.1	10.5	112.0
Consumer Non-cyclical	38	22.8	43.9	28.7	72.3	5.9	42.2
Diversified	2	43.2	56.3	32.1	39.2	-11.1	17.1
Energy	4	189.8	282.0	708.0	1328.0	518.2	1046.7
Industrial	63	21.6	37.9	19.6	35.3	-2.0	9.0
Technology	7	36.4	31.1	28.9	26.9	-7.4	17.3
Utilities	8	134.8	284.8	155.1	360.7	20.3	86.6



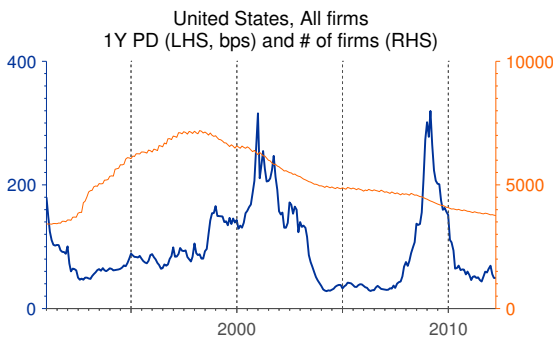
Taiwan	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	94	18.1	14.0	13.1	10.6	-5.0	9.4
Basic Materials	105	15.3	27.9	12.8	21.7	-2.6	12.8
Communications	81	11.7	16.8	8.3	12.0	-3.4	9.4
Consumer Cyclical	185	11.9	17.3	9.5	14.2	-2.5	10.7
Consumer Non-cyclical	129	9.2	22.9	7.0	13.7	-2.2	10.8
Diversified	1	3.7	-	3.5	-	-0.1	-
Energy	7	60.9	42.0	45.6	19.8	-15.3	32.9
Industrial	622	22.4	54.3	19.2	62.6	-3.2	28.4
Technology	337	22.2	42.3	17.4	32.5	-4.7	24.3
Utilities	6	0.8	1.2	0.6	1.1	-0.2	0.2



Thailand	#	2011Q4		2012Q1		Q1-Q4	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	88	45.9	49.1	43.4	42.0	-2.4	24.2
Basic Materials	43	45.2	45.9	44.9	47.7	-0.4	16.4
Communications	32	54.2	171.4	48.1	137.6	-6.2	35.3
Consumer Cyclical	97	27.9	32.4	28.2	33.9	0.3	14.2
Consumer Non-cyclical	63	27.4	43.6	24.4	35.6	-3.1	16.6
Energy	10	31.8	22.9	41.0	60.9	9.3	47.4
Industrial	80	51.5	68.9	53.3	76.5	1.8	20.4
Technology	8	92.3	107.8	62.1	38.8	-30.3	79.5
Utilities	5	5.2	8.6	6.3	9.5	1.1	2.4



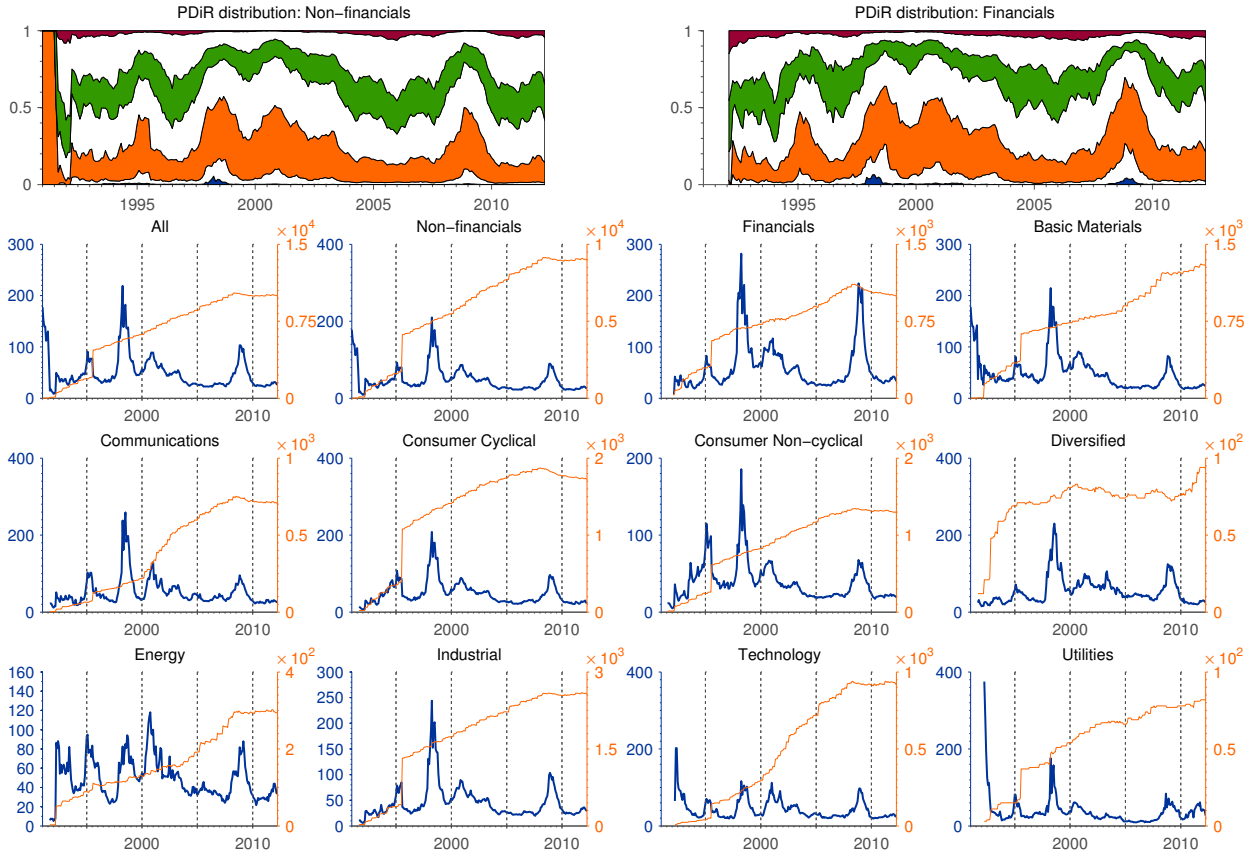
United Kingdom	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	201	23.2	54.8	21.9	71.1	-1.2	60.3
Basic Materials	113	33.8	106.1	23.2	57.8	-10.5	53.3
Communications	116	41.1	75.0	26.2	36.7	-14.8	61.1
Consumer Cyclical	148	40.5	92.0	33.5	107.1	-6.9	91.8
Consumer Non-cyclical	233	28.7	93.0	23.0	69.5	-5.7	32.5
Diversified	12	15.1	22.7	25.9	47.6	10.8	33.6
Energy	101	24.9	35.6	24.6	39.7	-0.3	29.0
Industrial	185	40.8	125.9	39.3	135.6	-1.6	116.3
Technology	88	21.0	60.6	17.0	42.9	-4.0	22.4
Utilities	11	5.4	7.4	5.1	6.7	-0.3	6.1



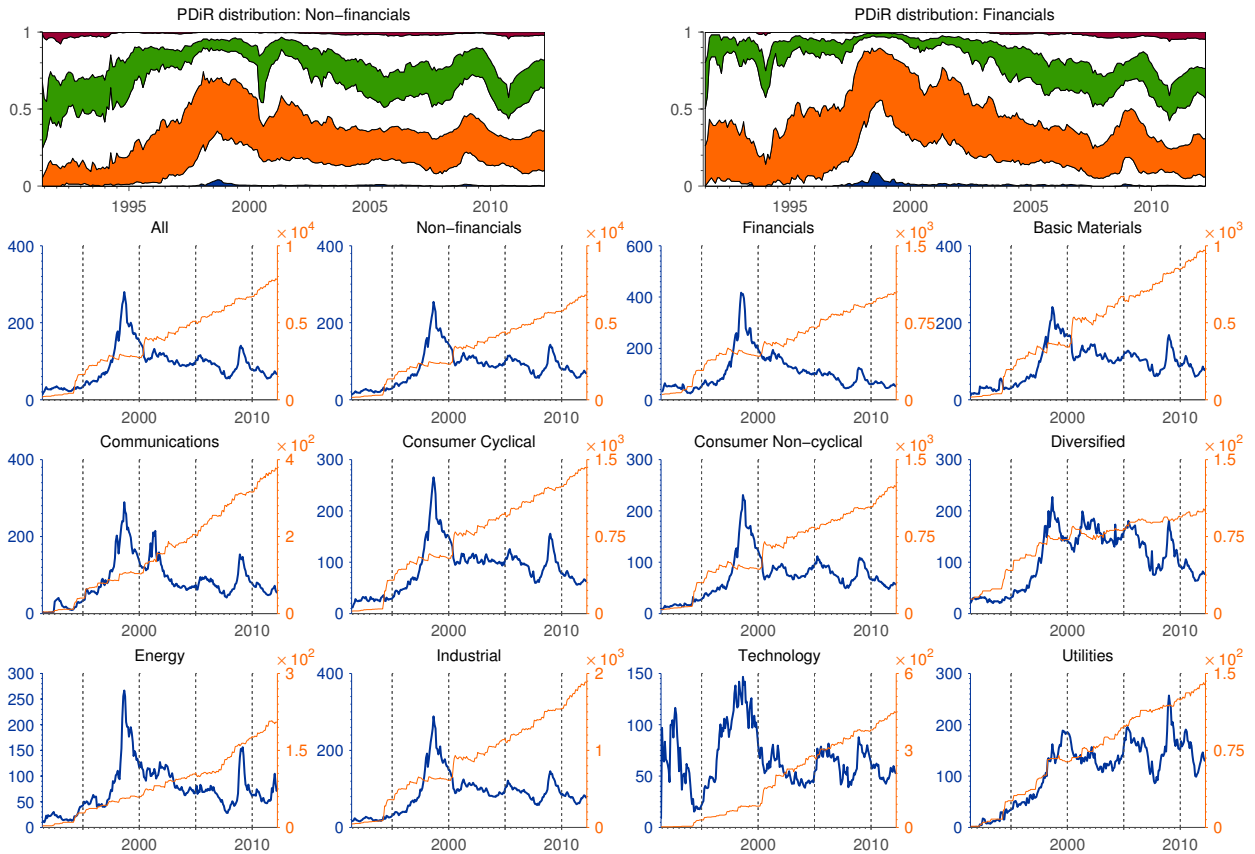
United States	2011Q4			2012Q1		Q1-Q4	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	878	80.6	251.5	59.2	205.3	-21.3	118.8
Basic Materials	141	33.7	97.4	35.0	113.1	1.3	70.5
Communications	302	79.6	224.7	69.2	191.6	-10.4	113.7
Consumer Cyclical	444	58.3	210.9	39.6	109.3	-18.7	117.9
Consumer Non-cyclical	763	48.0	156.9	40.8	128.2	-7.2	68.4
Diversified	6	107.9	187.8	197.7	300.4	89.8	149.9
Energy	271	69.8	210.5	69.1	163.3	-0.7	129.5
Industrial	496	60.0	211.3	48.4	155.0	-11.6	134.7
Technology	323	35.1	96.7	30.4	91.0	-4.7	48.6
Utilities	90	10.6	34.9	46.8	337.3	36.3	312.9

B PD by regions

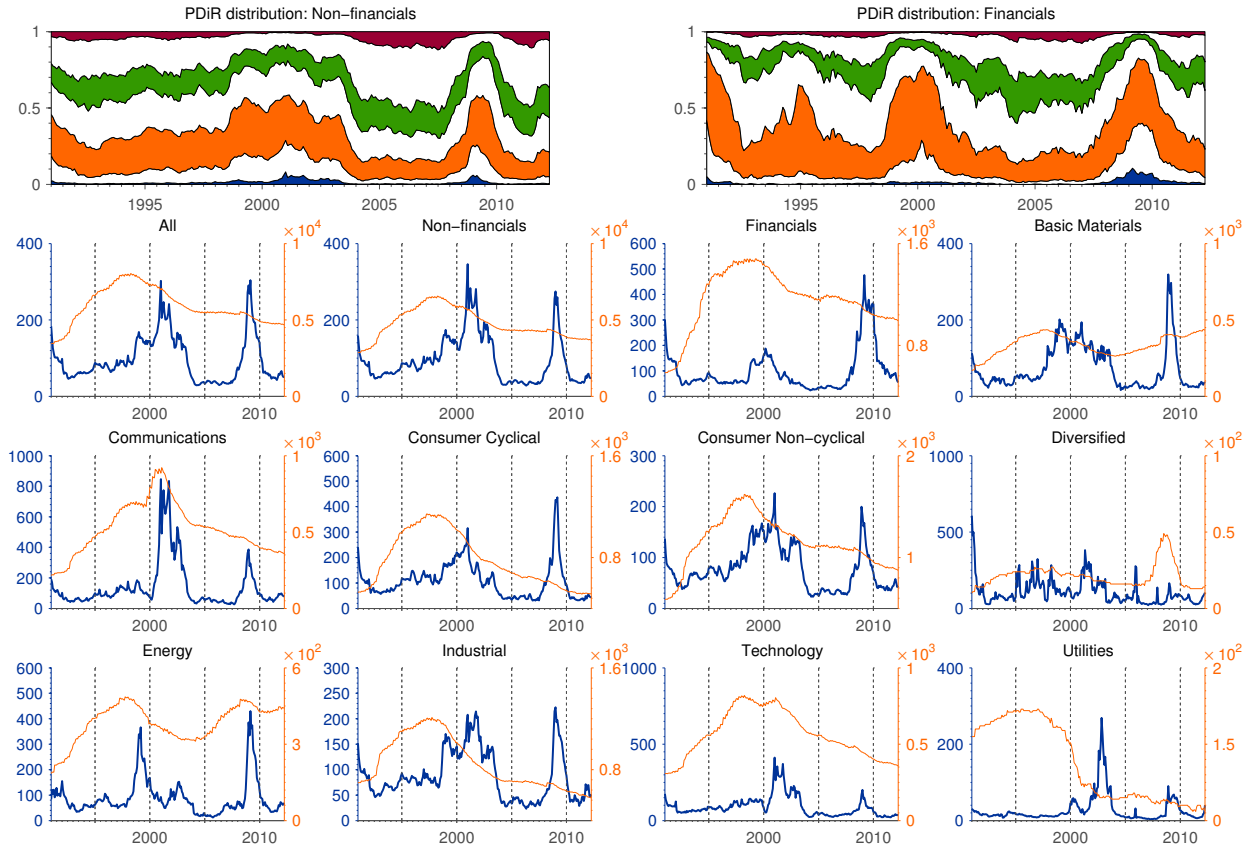
Asia Pacific - developed economies



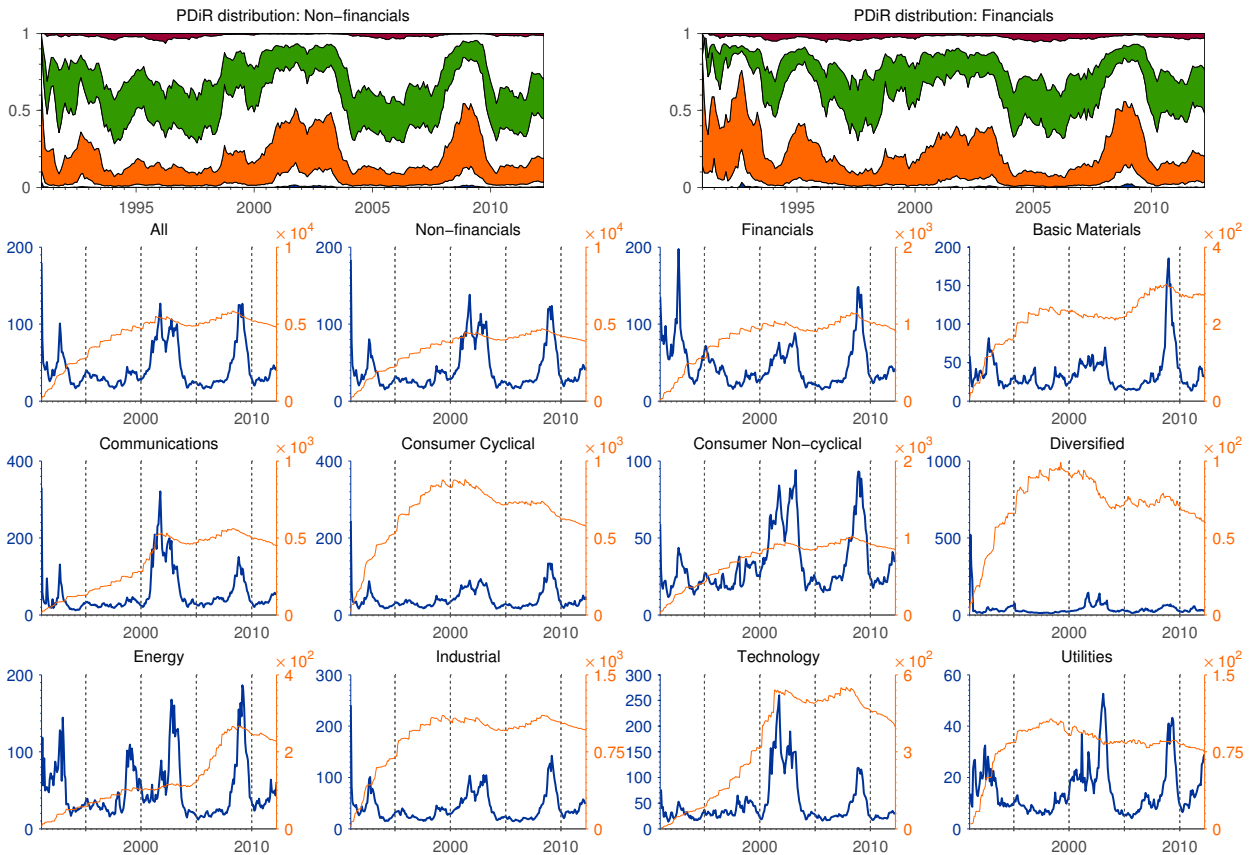
Asia Pacific - emerging economies



North America

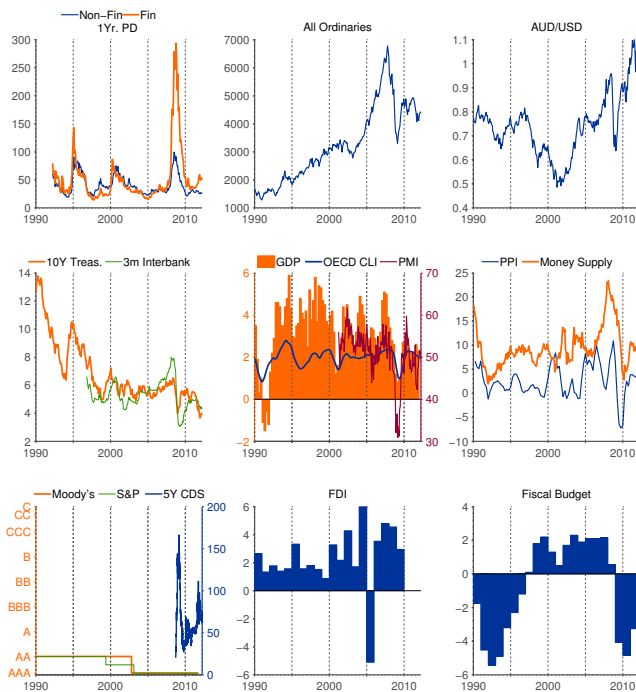


Western Europe

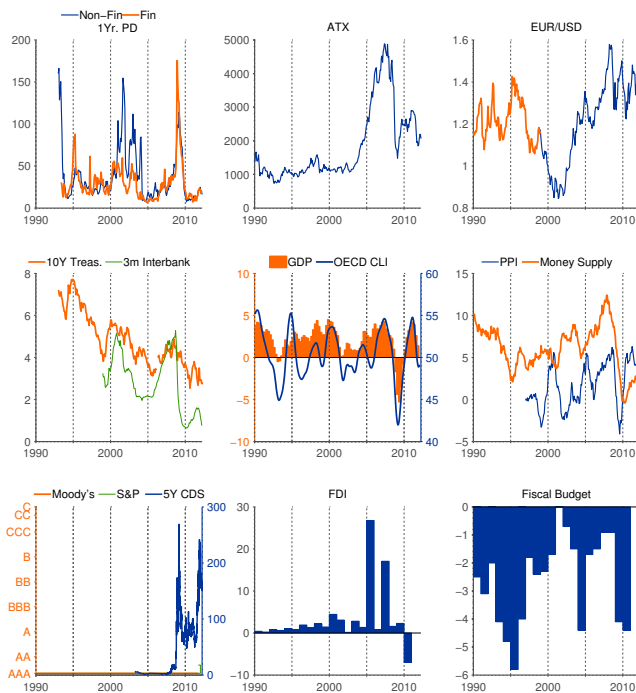


C Macroeconomic Indicators

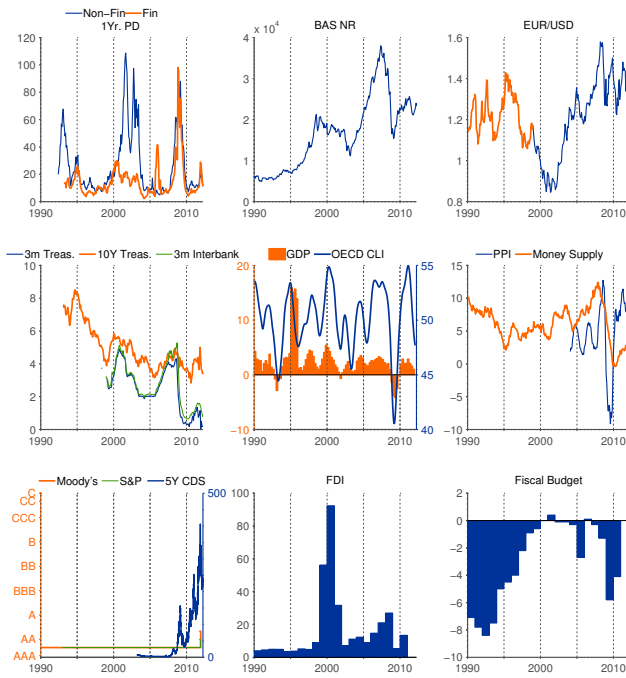
Descriptions of the data contained in this section are provided in Appendix D.



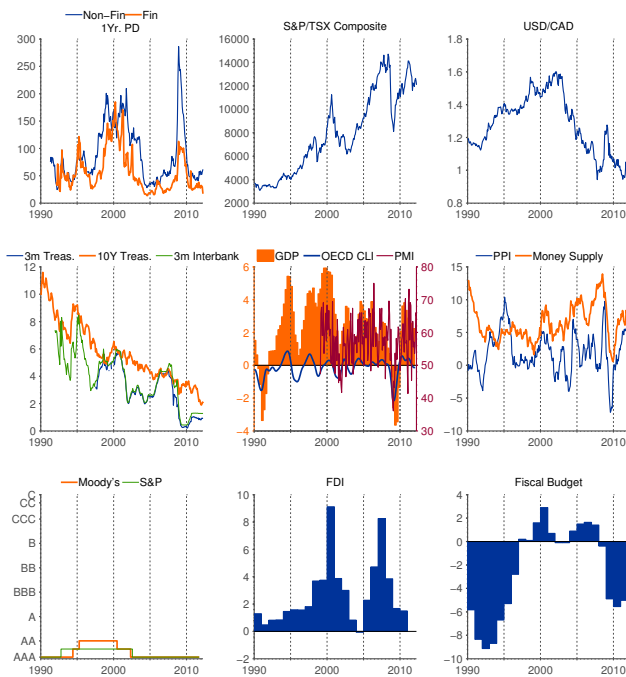
Australia	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	27.24	31.19	29.99	26.93	24.99
1Yr. PD, Fin.	35.45	38.23	44.82	49.50	49.41
All Ordinaries	4929	4660	4070	4111	4420
AUD/USD	1.03	1.07	0.97	1.02	1.03
10Y Treas. Yield (%)	5.49	5.21	4.22	3.67	3.98
3m Interbank (%)	4.92	4.97	4.87	4.50	4.32
GDP (YoY%)	1.2	2.0	2.6	2.3	-
OECD CLI	101.16	100.64	100.34	99.88	99.78*
PMI	47.9	52.9	42.3	50.2	49.5
PPI (YoY%)	3.9	3.6	3.4	2.7	-
Money Supply (YoY%)	9.93	8.88	9.76	8.02	7.74*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	52.31	57.12	98.90	81.83	72.38
Fiscal Budget (%GDP)	-	-	-	-3.26	-



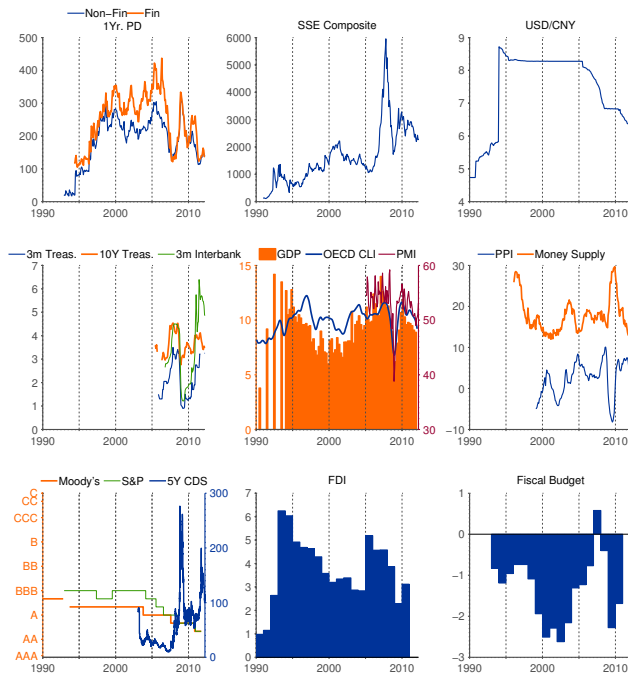
Austria	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	12.98	9.31	20.60	24.77	16.16
1Yr. PD, Fin.	8.59	8.85	21.31	21.86	20.39
ATX	2882	2767	1948	1892	2159
EUR/USD	1.42	1.45	1.34	1.30	1.33
10Y Treas. Yield (%)	3.80	3.50	2.68	2.90	2.75
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	4.2	3.9	2.6	1.4	-
OECD CLI	104.52	102.45	99.68	98.91	99.13*
PPI (YoY%)	6.3	4.7	4.2	3.1	2.8*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AA+	AA+	AA+
5Y CDS (bps)	59.50	61.45	170.95	190.37	154.70



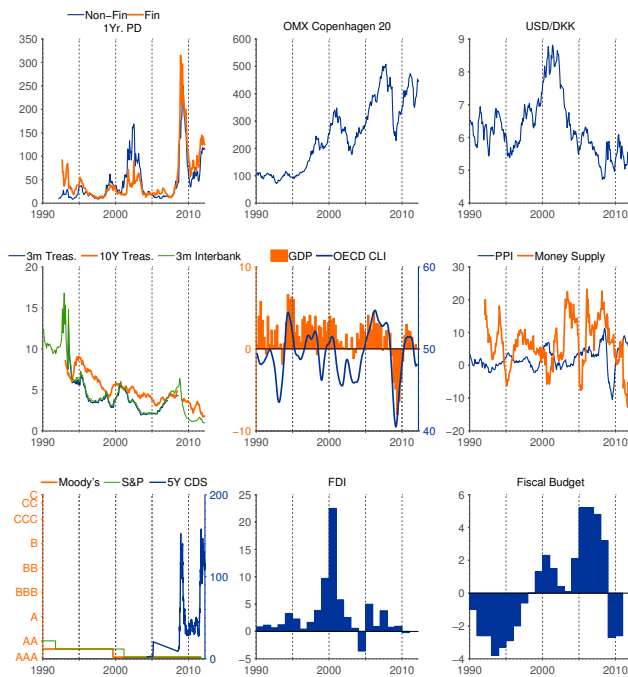
Belgium	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	11.00	11.26	13.28	17.53	11.11
1Yr. PD, Fin.	7.92	9.16	10.96	26.98	11.31
BAS NR	24803	24165	21347	21997	23992
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	1.05	1.35	0.83	0.05	0.17
10Y Treas. Yield (%)	4.30	4.09	3.65	4.09	3.40
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	2.9	2.1	1.6	1.0	-
OECD CLI	104.75	102.81	100.07	98.04	97.68*
PPI (YoY%)	11.1	9.2	8.0	5.6	4.5*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aa1	Aa1	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA+	AA+	AA	AA	AA
5Y CDS (bps)	139.4	143.1	260.0	316.2	232.7



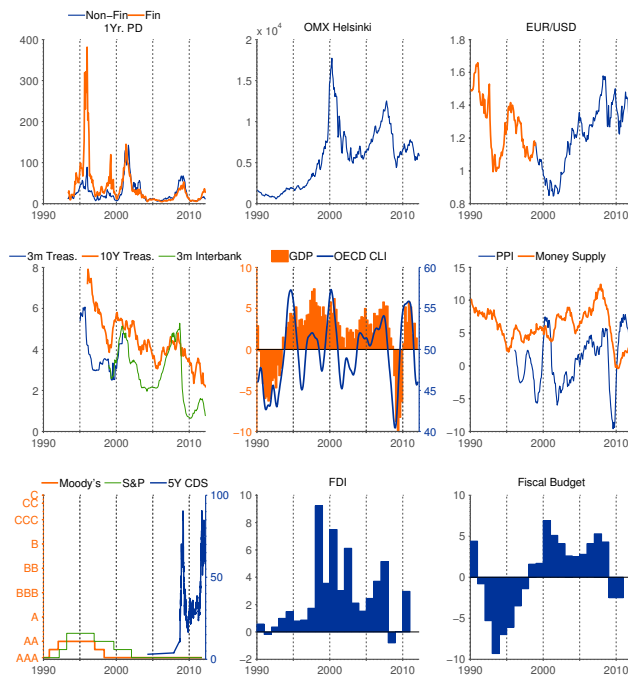
Canada	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	41.62	47.16	57.61	56.33	61.79
1Yr. PD, Fin.	30.93	28.81	28.55	32.34	17.05
S&P/TSX Composite	14116	13301	11624	11955	12392
USD/CAD	0.97	0.96	1.05	1.02	1.00
3m Treas. Yield (%)	0.96	0.90	0.81	0.80	0.91
10Y Treas. Yield (%)	3.35	3.11	2.15	1.94	2.11
3m Interbank (%)	1.30	1.29	1.28	1.28	1.28
GDP (YoY%)	2.88	2.15	2.57	2.24	-
OECD CLI	102.04	100.80	99.62	99.31	99.36*
PMI	73.2	68.2	63.4	53.6	65.0
PPI (YoY%)	5.15	5.52	5.58	2.60	1.68*
Money Supply (YoY%)	8.35	6.50	8.37	8.72	8.08*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
Fiscal Budget (%GDP)	-	-	-	-5.02	-



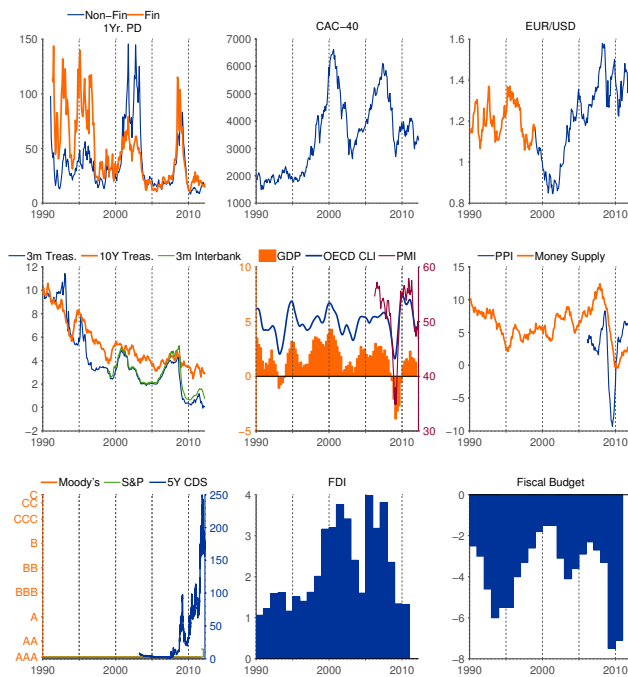
China	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	124.59	115.91	134.89	156.48	140.55
1Yr. PD, Fin.	153.09	127.27	139.99	163.00	137.76
SSE Composite	2928	2762	2359	2199	2263
USD/CNY	6.55	6.46	6.38	6.29	6.30
3m Treas. Yield (%)	2.66	2.64	3.21*	-	3.25
10Y Treas. Yield (%)	3.91	3.89	3.93	3.44	3.52
3m Interbank (%)	4.17	6.39	5.65	5.47	4.88
GDP (YoY%)	9.7	9.5	9.1	8.9	-
OECD CLI	101.46	100.77	100.23	98.98	98.42*
PMI	53.4	50.9	51.2	50.3	53.1
PPI (YoY%)	7.3	7.1	6.5	1.7	-0.3
Money Supply (YoY%)	16.6	15.9	13.0	13.6	13.0*
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	73.77	85.45	190.25	148.74	112.25



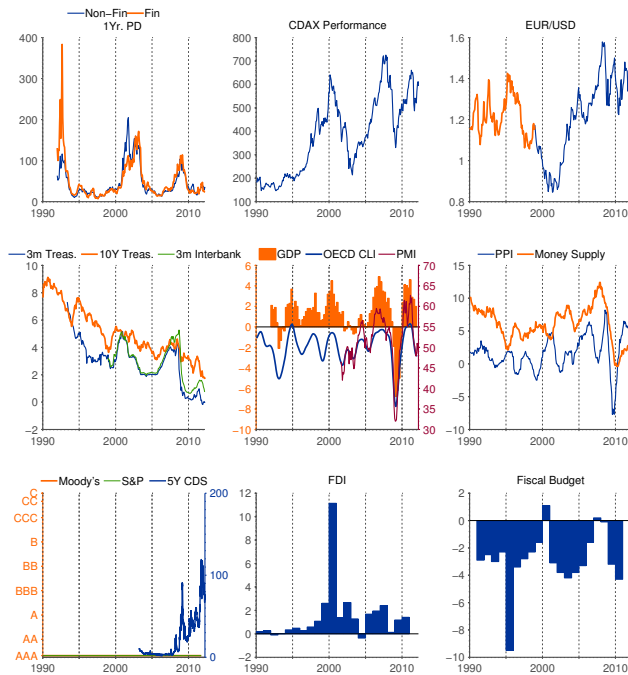
Denmark	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	66.89	53.08	110.54	114.46	114.17
1Yr. PD, Fin.	85.84	106.49	134.85	141.41	123.90
OMX Copenhagen 20	467.1	431.1	350.3	389.9	444.7
USD/DKK	5.27	5.14	5.56	5.73	5.58
10Y Treas. Yield (%)	3.59	3.24	2.08	1.68	1.83
3m Interbank (%)	1.34	1.61	1.38	1.00	0.98
GDP (YoY%)	2.1	1.4	0.0	0.5	-
OECD CLI	101.44	100.59	98.58	97.96	98.19*
PPI (YoY%)	9.0	6.8	5.9	4.1	3.3*
Money Supply (YoY%)	-4.98	-8.71	-5.19	-6.28	14.06*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	38.09	44.51	143.64	137.00	113.94



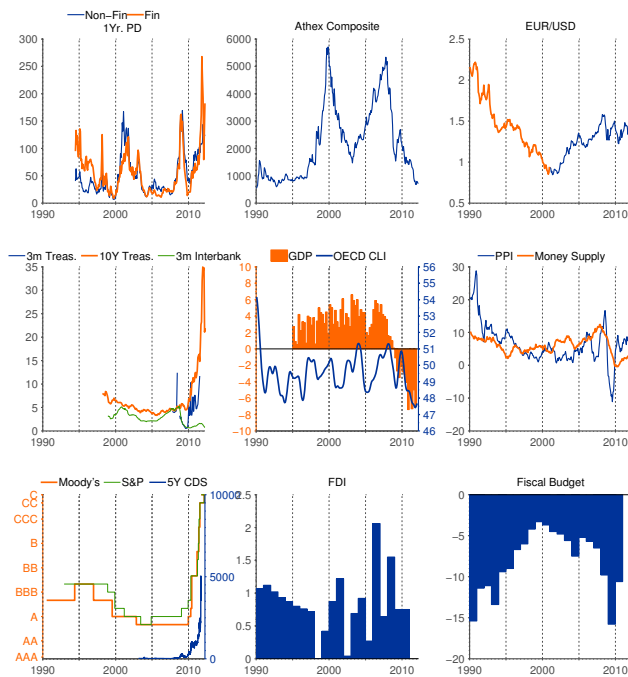
Finland	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	9.79	9.57	16.06	17.07	11.11
1Yr. PD, Fin.	11.95	10.16	22.01	28.74	26.05
OMX Helsinki	7520	6717	5272	5355	6035
EUR/USD	1.42	1.45	1.34	1.30	1.33
10Y Treas. Yield (%)	3.57	3.34	2.34	2.31	2.22
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	5.2	1.8	3.2	1.4	-
OECD CLI	104.27	100.49	96.47	95.79	96.07*
PPI (YoY%)	7.8	5.9	4.3	1.8	2.2*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	29.35	35.12	80.89	77.83	66.55



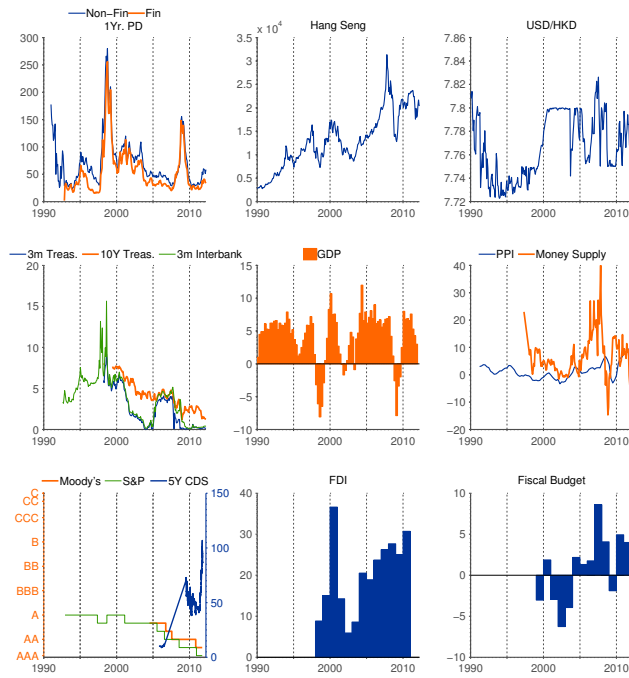
France	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	11.04	8.65	15.06	19.11	17.88
1Yr. PD, Fin.	25.28	18.24	20.18	16.76	14.32
CAC-40	3989	3982	2982	3160	3424
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	0.80	1.18	0.38	-0.06	0.07
10Y Treas. Yield (%)	3.71	3.41	2.60	3.15	2.89
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	2.3	1.7	1.6	1.3	-
OECD CLI	103.49	101.38	99.17	98.81	99.12*
PMI	55.4	52.5	48.2	48.9	46.7
PPI (YoY%)	6.7	6.1	6.1	4.6	4.3*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AA+	AA+	AA+
5Y CDS (bps)	74.45	80.17	187.31	222.30	169.41



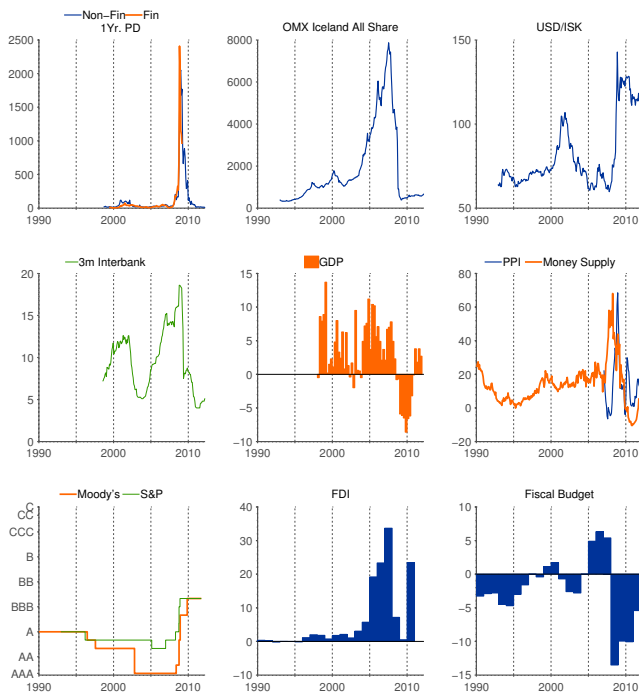
Germany	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	19.55	23.77	35.71	38.03	35.80
1Yr. PD, Fin.	25.44	28.65	44.13	25.36	22.57
CDAX Performance	623.0	651.4	487.2	520.7	612.1
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	0.75	0.98	0.11	-0.18	-0.03
10Y Treas. Yield (%)	3.35	3.02	1.89	1.83	1.79
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	4.6	2.9	2.7	2.0	-
OECD CLI	105.49	103.10	99.43	97.96	98.07*
PMI	60.9	54.6	50.3	48.4	48.4
PPI (YoY%)	6.1	5.6	5.5	4.0	3.1*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	45.00	42.84	112.23	103.73	73.67



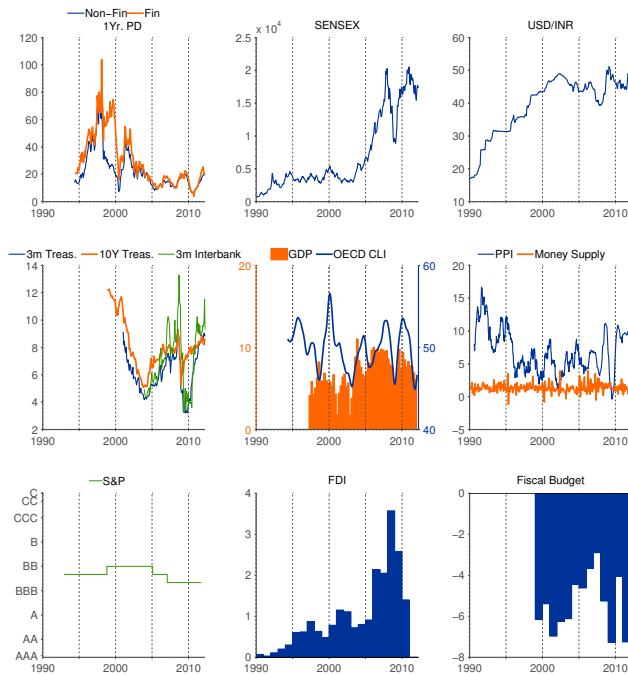
Greece	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	92.41	102.30	107.98	144.08	125.07
1Yr. PD, Fin.	69.62	83.47	161.44	191.50	182.36
Athex Composite	1535	1279	798	680	729
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	5.26	9.62	11.71*	-	-
10Y Treas. Yield (%)	12.84	16.34	22.69	34.96	21.08
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	-5.5	-7.3	-5.0	-7.0	-
OECD CLI	97.97	97.65	97.46	97.59	97.67*
PPI (YoY%)	8.1	6.3	8.1	5.7	6.9*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	B1	Caa1	C	C	C
Sov. Rating, S&P	BB-	CCC	SD	SD	SD
5Y CDS (bps)	1003.1	1952.4	3535.7	-	-



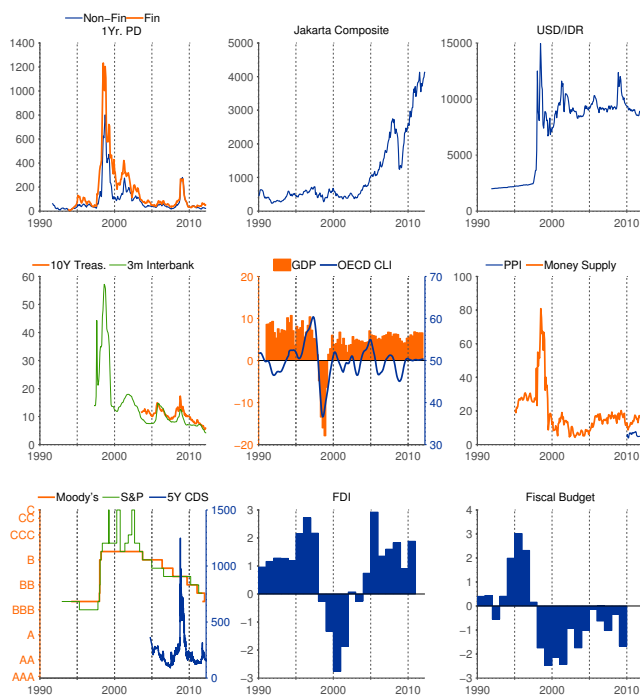
Hong Kong	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	32.26	34.31	54.10	58.95	58.51
1Yr. PD, Fin.	22.10	24.37	37.67	41.19	36.03
Hang Seng	23528	22398	17592	18434	20556
USD/HKD	7.78	7.78	7.79	7.77	7.77
3m Treas. Yield (%)	0.22	0.10	0.13	0.24	0.14
10Y Treas. Yield (%)	2.69	2.33	1.31	1.51	1.28
3m Interbank (%)	0.26	0.26	0.28	0.38	0.40
GDP (YoY%)	7.6	5.3	4.3	3.0	-
PPI (YoY%)	8.2	9.0	9.5	6.5	-
Money Supply (YoY%)	7.2	8.4	-0.4	4.6	9.8*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	43.51	57.84	104.18	86.63*	-
Fiscal Budget (%GDP)	-	-	-	3.99	-



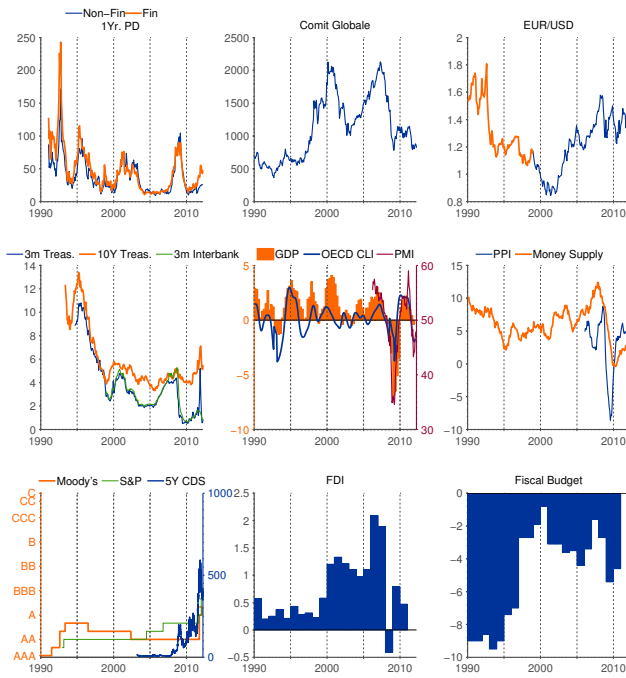
Iceland	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	16.90	12.81	16.36	11.72	6.94
OMX Iceland All Share	626.8	605.0	576.8	580.7	663.4
USD/ISK	114.1	114.3	118.3	122.7	126.5
3m Interbank (%)	4.00	4.00	4.60	4.80	5.10
GDP (YoY%)	3.8	1.8	3.8	2.7	-
PPI (YoY%)	6.97	13.01	13.86	6.77	4.92*
Money Supply (YoY%)	-8.23	-5.00	5.46	7.20	8.88*
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
Fiscal Budget (%GDP)	-	-	-	-5.42	-



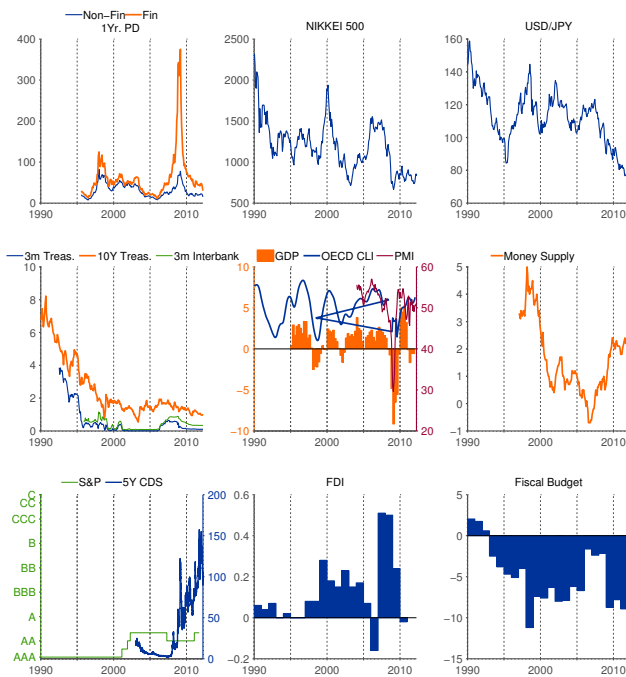
India	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	11.04	13.85	15.67	19.14	19.81
1Yr. PD, Fin.	10.87	16.05	21.43	25.38	20.75
SENSEX	19445	18846	16454	15455	17404
USD/INR	44.59	44.70	48.97	53.06	50.88
3m Treas. Yield (%)	7.22	8.15	8.42	8.53	8.93
10Y Treas. Yield (%)	7.99	8.33	8.43	8.57	8.54
3m Interbank (%)	10.25	9.00	8.88	9.60	11.53
GDP (YoY%)	7.8	7.7	6.9	6.1	-
OECD CLI	99.30	96.43	94.89	95.99	96.66*
PPI (YoY%)	9.68	9.51	10.00	7.74	6.95*
Money Supply (YoY%)	0.77	1.47	0.38	2.52	-
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
Fiscal Budget (%GDP)	-	-	-	-7.25	-



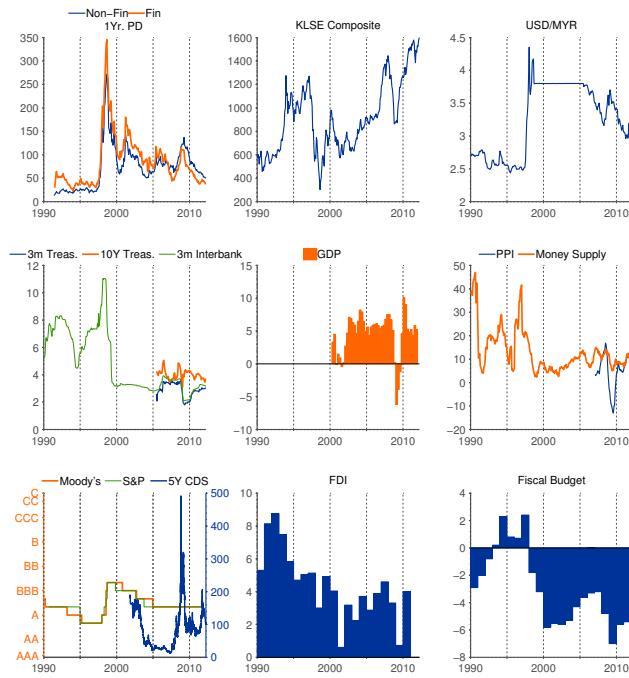
Indonesia	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	27.79	20.21	29.22	27.62	21.85
1Yr. PD, Fin.	43.36	42.49	67.51	61.87	46.25
Jakarta Composite	3679	3889	3549	3822	4122
USD/IDR	8708	8579	8875	9069	9146
10Y Treas. Yield (%)	8.04	7.55	6.92	6.03	5.93
3m Interbank (%)	7.05	7.14	6.10	5.27	4.21
GDP (YoY%)	6.7	6.6	6.6	6.6	-
OECD CLI	100.12	100.14	100.22	100.29	100.25*
PPI (YoY%)	7.43	4.66	4.87	4.44	4.12*
Money Supply (YoY%)	16.06	13.07	16.19	16.43	17.75*
Sov. Rating, Moody's	Ba1	Ba1	Baa3	Baa3	Baa3
Sov. Rating, S&P	BB	BB+	BB+	BB+	BB+
5Y CDS (bps)	144.0	141.7	291.5	210.0	166.5



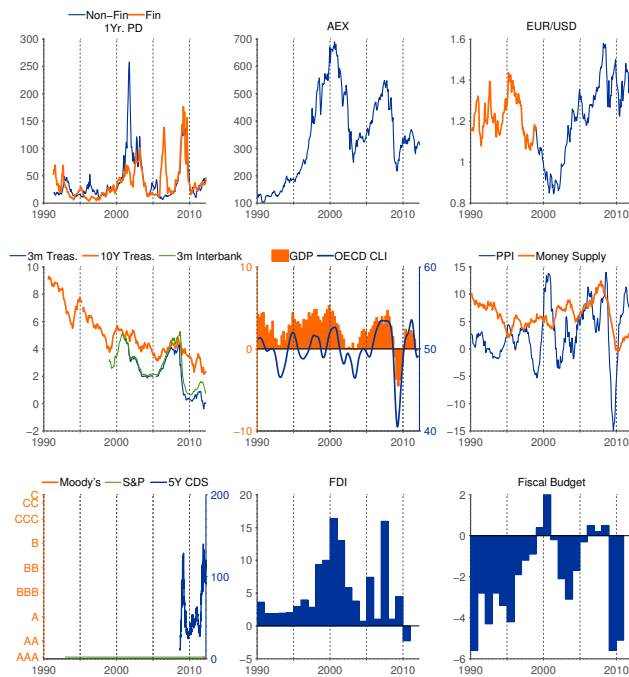
Italy	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	27.98	13.68	20.86	24.43	26.21
1Yr. PD, Fin.	27.54	27.57	36.98	54.34	47.49
Comit Globale	1120	1039	796	806	859
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	1.08	1.58	1.60	2.86	0.59
10Y Treas. Yield (%)	4.82	4.88	5.54	7.11	5.12
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	1.2	1.0	0.4	-0.4	-
OECD CLI	103.06	100.19	96.92	96.15	96.56*
PMI	56.2	49.8	48.3	44.3	47.9
PPI (YoY%)	6.2	4.6	4.7	3.9	3.2*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aa2	Aa2	A3	A3	A3
Sov. Rating, S&P	A+	A+	BBB+	BBB+	BBB+
5Y CDS (bps)	150.9	171.0	470.0	503.2	396.8



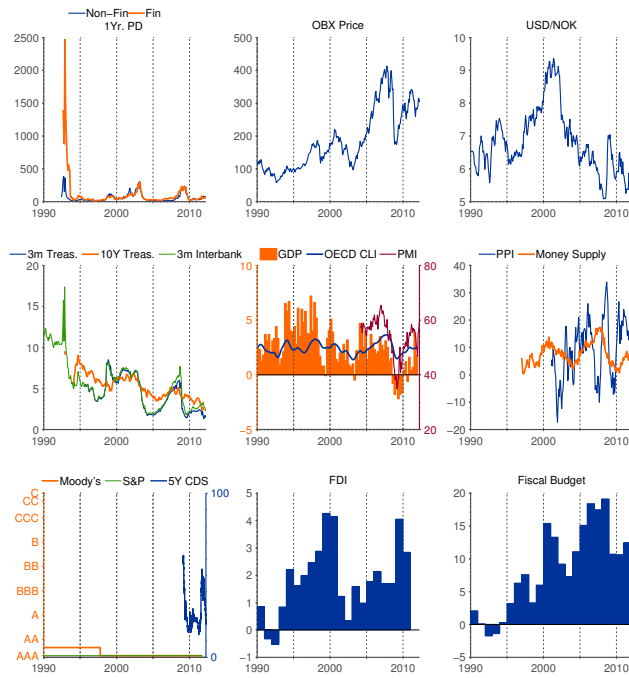
Japan	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	23.58	19.44	21.22	22.77	15.15
1Yr. PD, Fin.	53.75	44.93	45.52	47.99	30.32
NIKKEI 500	846.2	845.7	770.3	738.8	856.3
USD/JPY	83.13	80.56	77.06	76.91	82.87
3m Treas. Yield (%)	0.11	0.10	0.10	0.10	0.10
10Y Treas. Yield (%)	1.26	1.14	1.03	0.99	0.99
3m Interbank (%)	0.34	0.34	0.34	0.34	0.34
GDP (YoY%)	-0.10	-1.67	-0.55	-0.58	-
OECD CLI	102.57	101.70	101.17	102.06	102.59*
PMI	46.4	50.7	49.3	50.2	51.1
Money Supply (YoY%)	2.0	2.3	2.3	2.6	2.5*
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	99.75	90.77	146.47	143.07	99.94
Fiscal Budget (%GDP)	-	-	-	-8.93	-



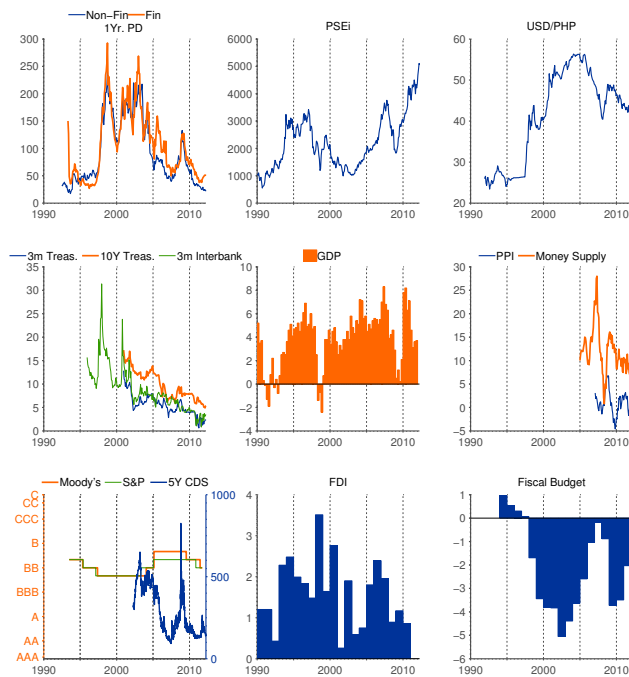
Malaysia	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	62.83	62.76	59.57	52.82	50.02
1Yr. PD, Fin.	39.85	40.37	47.28	43.59	38.66
KLSE Composite	1545	1579	1387	1531	1596
USD/MYR	3.03	3.02	3.19	3.17	3.06
3m Treas. Yield (%)	2.80	2.89	3.05	2.99	3.04
10Y Treas. Yield (%)	4.10	3.93	3.70	3.70	3.68
3m Interbank (%)	3.04	3.29	3.26	3.22	3.19
GDP (YoY%)	5.2	4.3	5.8	5.2	-
PPI (YoY%)	7.9	10.7	11.2	6.2	4.3*
Money Supply (YoY%)	7.97	12.36	12.47	14.35	15.90*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	75.00	90.68	196.85	142.74	100.26
Fiscal Budget (%GDP)	-	-	-	-5.40	-



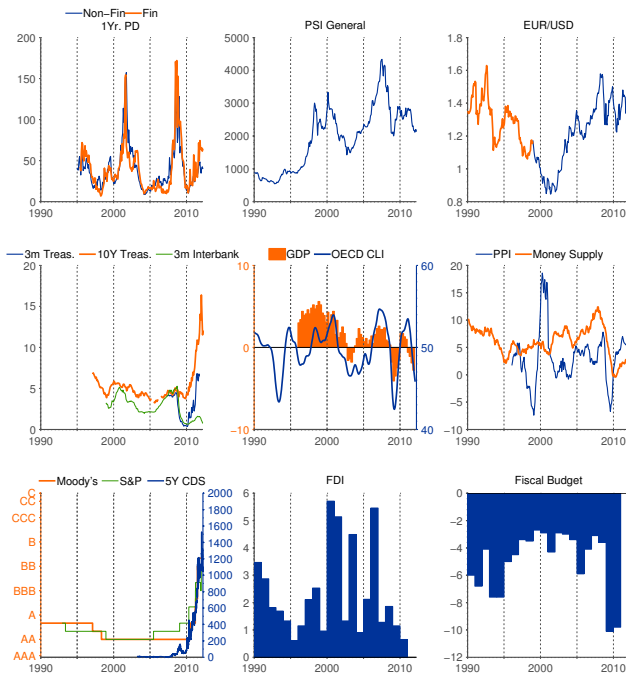
Netherlands	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	29.48	22.42	35.32	45.02	42.45
1Yr. PD, Fin.	29.39	33.68	38.66	33.53	46.99
AEX	365.6	339.6	280.2	312.5	323.5
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	0.81	0.90	0.16	-0.39	0.02
10Y Treas. Yield (%)	3.64	3.34	2.29	2.19	2.33
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	2.2	1.8	1.2	-0.2	-
OECD CLI	103.49	101.79	99.61	99.03	99.17*
PPI (YoY%)	10.6	9.1	7.7	5.0	4.2*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	-	-	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	37.75	38.03	105.14	121.85	117.63



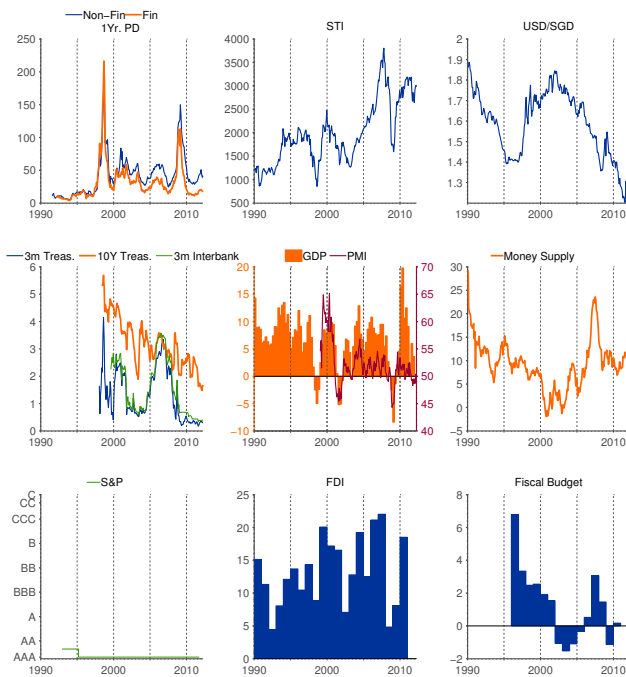
Norway	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	29.69	37.96	74.17	83.22	77.70
1Yr. PD, Fin.	44.01	45.05	52.41	61.33	54.43
OBX Price	339.8	310.5	258.6	284.0	312.3
USD/NOK	5.54	5.39	5.87	5.98	5.69
3m Treas. Yield (%)	2.25	2.33	1.76	1.31	1.50
10Y Treas. Yield (%)	3.83	3.41	2.38	2.40	2.38*
3m Interbank (%)	2.67	2.92	3.03	2.89	2.28
GDP (YoY%)	0.4	0.7	3.9	1.8	-
OECD CLI	99.59	99.59	99.78	99.89	99.98*
PMI	57.4	56.2	53.8	46.8	59.7
PPI (YoY%)	21.4	14.4	15.3	8.2	6.6
Money Supply (YoY%)	6.5	6.3	7.7	6.0	6.3*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	17.14	21.37	50.03	44.28	21.50
Fiscal Budget (%GDP)	-	-	-	12.48	-



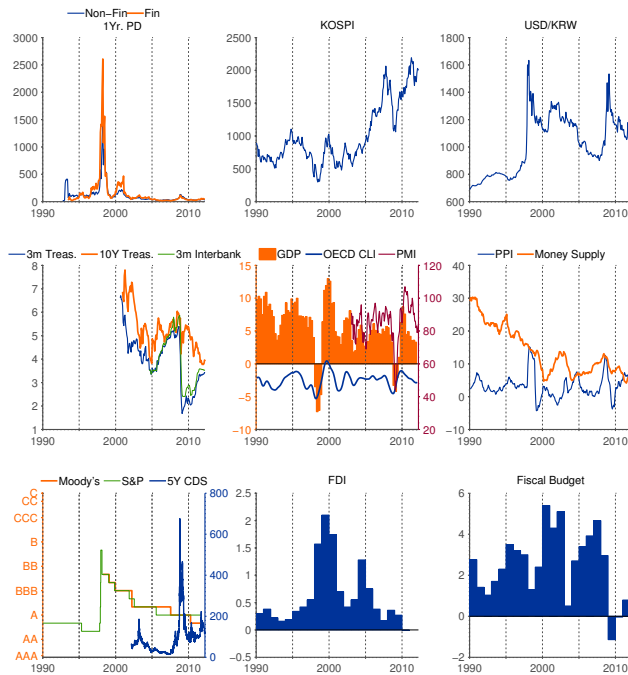
Philippines	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	32.80	29.64	25.52	24.81	21.62
1Yr. PD, Fin.	43.62	40.54	43.16	49.56	50.21
PSEI	4055	4291	4000	4372	5108
USD/PHP	43.36	43.38	43.77	43.84	42.91
3m Treas. Yield (%)	1.04	2.90	2.75	1.45	2.35
10Y Treas. Yield (%)	6.98	6.41	5.86	5.07	5.30
3m Interbank (%)	2.00	3.75	2.38	2.25	3.38
GDP (YoY%)	4.6	3.1	3.6	3.7	-
PPI (YoY%)	-0.6	2.4	-0.8	-0.9	-
Money Supply (YoY%)	10.26	11.37	7.41	6.31	7.22*
Sov. Rating, Moody's	Ba3	Ba2	Ba2	Ba2	Ba2
Sov. Rating, S&P	BB	BB	BB	BB	BB
5Y CDS (bps)	133.1	138.7	256.6	193.5	146.3
Fiscal Budget (%GDP)	-	-	-	-2.03	-



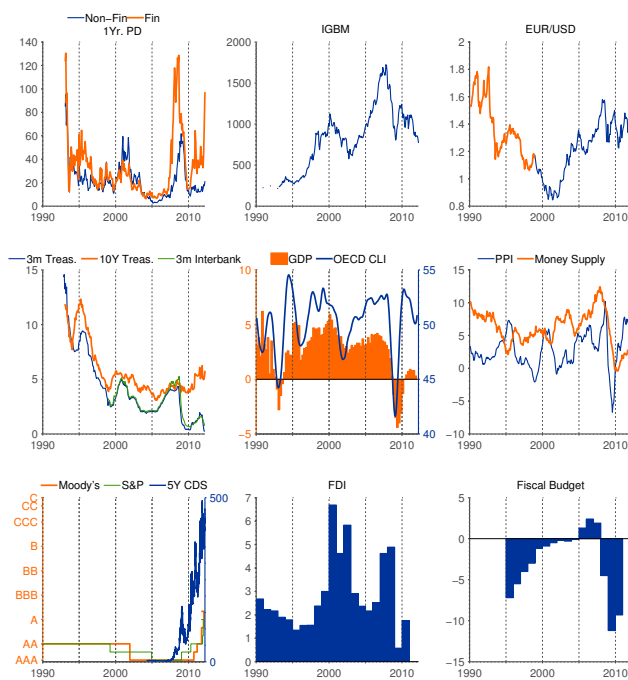
Portugal	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	30.14	31.86	44.66	34.67	39.74
1Yr. PD, Fin.	48.07	29.64	49.95	63.60	64.62
PSI General	2789	2774	2292	2167	2189
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	3.01	6.82	6.78	6.48*	-
10Y Treas. Yield (%)	8.41	10.90	10.93	13.36	11.53
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	-0.6	-1.1	-1.9	-2.8	-
OECD CLI	102.93	100.96	98.54	96.37	95.82*
PPI (YoY%)	7.0	5.8	5.5	4.4	4.1*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	A3	Baa1	Ba3	Ba3	Ba3
Sov. Rating, S&P	BBB-	BBB-	BB	BB	BB
5Y CDS (bps)	579.6	744.8	1109.6	1092.7	1075.6



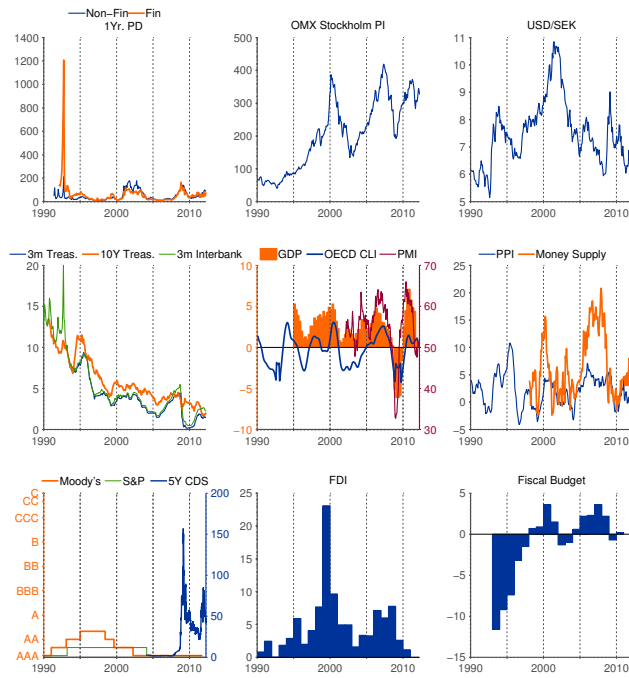
Singapore	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	30.83	34.19	43.04	50.85	41.83
1Yr. PD, Fin.	14.73	13.17	18.96	20.63	16.86
STI	3106	3120	2675	2646	3010
USD/SGD	1.26	1.23	1.31	1.30	1.26
3m Treas. Yield (%)	0.25	0.32	0.22	0.37	0.30
10Y Treas. Yield (%)	2.48	2.31	1.62	1.63	1.66
3m Interbank (%)	0.44	0.44	0.38	0.39	0.39
GDP (YoY%)	9.1	1.2	6.0	3.6	-
PMI	50.1	50.4	48.3	49.5	50.2
Money Supply (YoY%)	8.6	10.6	11.3	10.1	9.7*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA



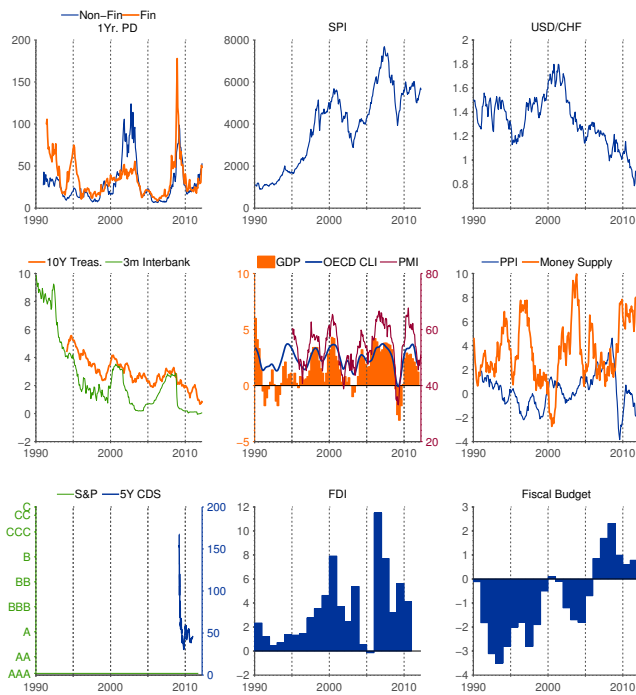
South Korea	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	38.33	31.17	42.26	40.37	34.10
1Yr. PD, Fin.	33.72	40.39	58.44	56.05	46.38
KOSPI	2107	2101	1770	1826	2014
USD/KRW	1097	1068	1178	1152	1133
3m Treas. Yield (%)	3.04	3.32	3.31	3.36	3.43
10Y Treas. Yield (%)	4.48	4.29	3.95	3.79	3.96
3m Interbank (%)	3.37	3.56	3.57	3.56	3.53
GDP (YoY%)	4.2	3.5	3.6	3.3	-
OECD CLI	100.78	99.83	98.76	98.51	98.79*
PMI	96.0	97.0	86.0	83.0	84.0
PPI (YoY%)	7.3	6.2	5.7	4.3	2.8
Money Supply (YoY%)	4.7	4.1	5.7	6.2	6.5*
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A	A	A	A	A
5Y CDS (bps)	101.1	102.9	215.2	169.4	123.7
Fiscal Budget (%GDP)	-	-	-	0.79	-



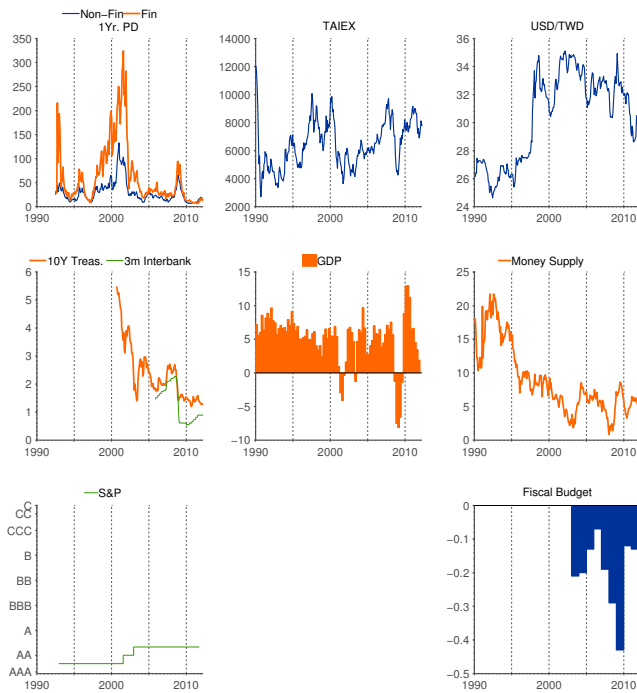
Spain	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	11.72	12.21	13.61	14.81	21.26
1Yr. PD, Fin.	37.89	34.39	35.42	32.69	97.23
IGBM	1079	1050	863	858	807
EUR/USD	1.42	1.45	1.34	1.30	1.33
3m Treas. Yield (%)	1.27	1.40	1.75	1.10	0.25
10Y Treas. Yield (%)	5.30	5.45	5.14	5.09	5.35
3m Interbank (%)	1.24	1.55	1.55	1.36	0.78
GDP (YoY%)	0.9	0.8	0.8	0.3	-
OECD CLI	101.80	100.75	100.11	100.42	100.86*
PPI (YoY%)	7.8	6.7	7.1	5.2	3.4*
Money Supply (YoY%)	2.3	2.0	2.8	1.8	2.6*
Sov. Rating, Moody's	Aa2	Aa2	A3	A3	A3
Sov. Rating, S&P	AA	AA	A	A	A
5Y CDS (bps)	233.46	269.91	382.24	393.52	436.64



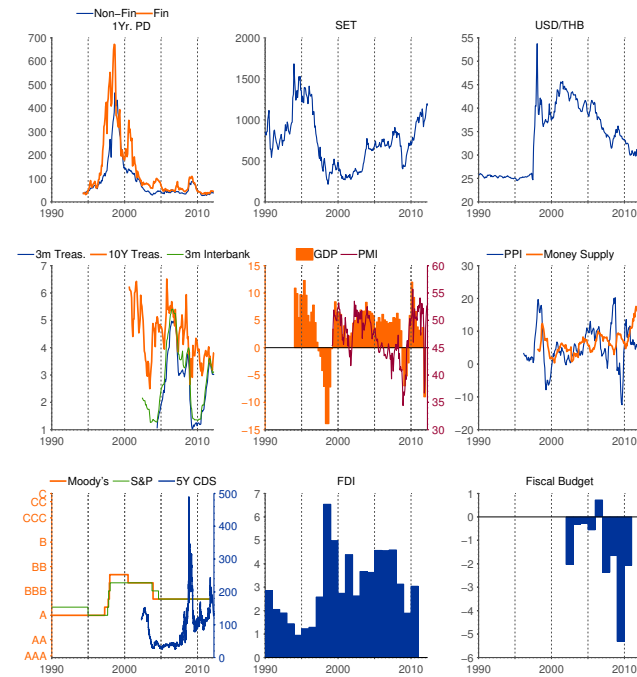
Sweden	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	60.92	37.65	77.43	93.14	92.68
1Yr. PD, Fin.	77.99	61.92	51.19	76.40	79.09
OMX Stockholm PI	364.3	353.9	283.6	307.0	338.4
USD/SEK	6.32	6.33	6.87	6.89	6.61
3m Treas. Yield (%)	1.70	1.80	1.55	1.40	1.45
10Y Treas. Yield (%)	3.35	2.90	1.74	1.62	1.98
3m Interbank (%)	2.39	2.48	2.51	2.64	2.27
GDP (YoY%)	5.8	4.8	4.4	1.2	-
OECD CLI	100.97	101.21	101.90	101.87	101.40*
PMI	58.6	52.9	48.1	48.9	50.2
PPI (YoY%)	1.7	-0.2	-0.2	-2.1	0.5*
Money Supply (YoY%)	4.81	5.37	8.02	6.41	9.53*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	26.83	27.12	61.49	77.83	42.91



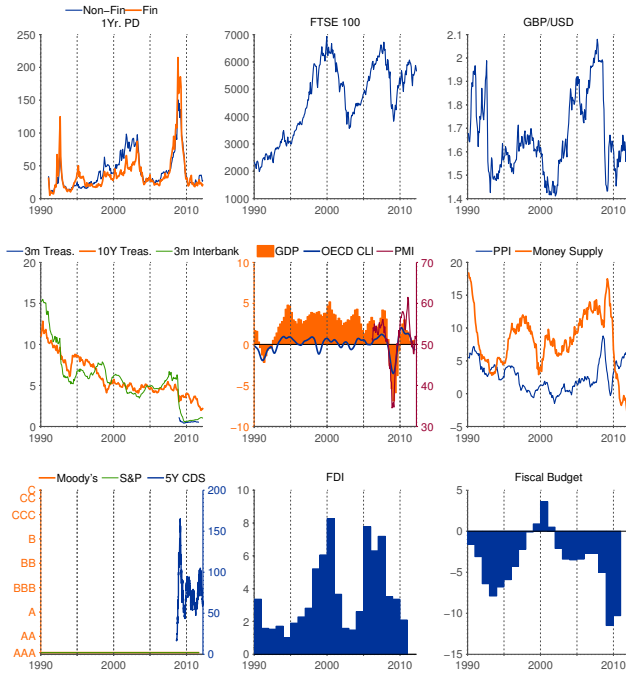
Switzerland	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	29.40	24.63	39.97	39.48	53.31
1Yr. PD, Fin.	25.01	17.76	35.37	29.39	47.56
SPI	5792	5685	5006	5344	5716
USD/CHF	0.92	0.84	0.91	0.94	0.90
10Y Treas. Yield (%)	1.96	1.73	0.94	0.66	0.87
3m Interbank (%)	0.12	0.11	-0.04	-0.01	0.05
GDP (YoY%)	2.4	2.1	1.7	1.2	-
OECD CLI	104.47	101.59	98.12	97.35	97.57*
PMI	59.5	54.2	49.3	49.1	51.1
PPI (YoY%)	-0.1	-0.8	-1.9	-2.2	-1.5*
Money Supply (YoY%)	6.81	5.18	7.93	7.43	6.43*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	46.51*	-	-	-	-
Fiscal Budget (%GDP)	-	-	-	0.78	-



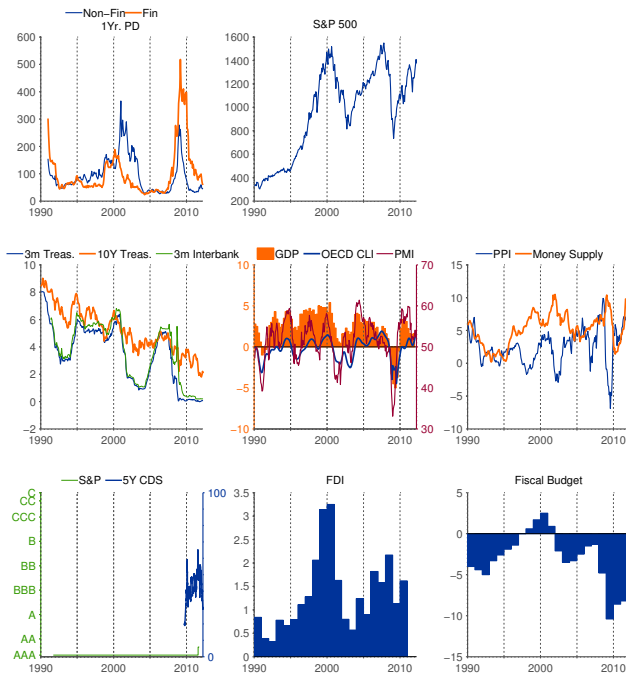
Taiwan	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	8.61	10.23	16.55	18.99	15.39
1Yr. PD, Fin.	9.11	6.69	12.21	17.64	12.96
TAIEX	8683	8653	7225	7072	7933
USD/TWD	29.41	28.72	30.48	30.28	29.50
10Y Treas. Yield (%)	1.36	1.55	1.38	1.29	1.28
3m Interbank (%)	0.73	0.82	0.90	0.89	0.89
GDP (YoY%)	6.62	4.52	3.45	1.89	-
Money Supply (YoY%)	5.97	5.94	5.73	4.84	4.94*
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
Fiscal Budget (%GDP)	-	-	-	-0.13	-



Thailand	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	27.42	33.34	35.84	40.33	38.57
1Yr. PD, Fin.	31.41	38.46	40.72	46.41	44.25
SET	1047	1041	916	1025	1197
USD/THB	30.28	30.73	31.19	31.55	30.83
3m Treas. Yield (%)	2.50	3.06	3.50	3.14	3.02
10Y Treas. Yield (%)	3.71	3.88	3.69	3.29	3.81
3m Interbank (%)	2.70	3.29	3.60	3.26	3.11
GDP (YoY%)	3.2	2.7	3.7	-9.0	-
PMI	54.1	53.1	48.5	48.5	52.7*
PPI (YoY%)	5.86	4.52	5.62	4.47	1.82*
Money Supply (YoY%)	13.16	16.30	16.16	15.20	13.59*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	115.4	132.4	237.0	182.0	126.8



United Kingdom	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	28.58	23.43	34.64	35.97	27.74
1Yr. PD, Fin.	22.49	19.58	28.88	23.80	22.20
FTSE 100	5909	5946	5128	5572	5768
GBP/USD	1.60	1.61	1.56	1.55	1.60
3m Treas. Yield (%)	0.63	0.54	0.53	-	-
10Y Treas. Yield (%)	3.69	3.38	2.43	1.98	2.20
3m Interbank (%)	0.82	0.83	0.95	1.08	1.03
GDP (YoY%)	1.5	0.4	0.3	0.5	-
OECD CLI	102.46	101.29	99.41	98.73	98.87*
PMI	56.7	51.4	50.8	49.7	52.1
PPI (YoY%)	5.6	5.8	6.3	4.8	4.1*
Money Supply (YoY%)	-1.3	-0.7	-1.7	-2.5	-3.4*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	54.75	60.70	94.41	97.50	62.86



United States	2011				2012
	Q1	Q2	Q3	Q4	Q1
1Yr. PD, Non-Fin. (bps)	32.99	35.49	51.09	59.99	46.34
1Yr. PD, Fin.	115.53	80.67	87.17	99.10	58.93
S&P 500	1326	1321	1131	1258	1408
3m Treas. Yield (%)	0.09	0.01	0.02	0.01	0.07
10Y Treas. Yield (%)	3.47	3.16	1.92	1.88	2.21
3m Interbank (%)	0.35	0.20	0.20	0.22	0.20
GDP (YoY%)	2.2	1.6	1.5	1.6	-
OECD CLI	102.12	101.28	100.36	101.77	102.47*
PMI	59.7	55.8	52.5	53.1	53.4
PPI (YoY%)	5.6	6.9	7.0	4.8	3.3*
Money Supply (YoY%)	5.0	5.9	9.6	9.6	9.9*
Sov. Rating, S&P	AAA	AAA	AA+	AA+	AA+
5Y CDS (bps)	40.97	50.36	51.41	51.00	29.66
Fiscal Budget (%GDP)	-	-	-	-8.20	-

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 on August 19 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. The following table lists the name of each stock index.

Stock Indices

Economy	Index Name	Economy	Index Name
Australia	Australian All Ordinaries Index	Italy	Italy Stock Market BCI Comit Globale Index
Austria	Austrian Traded Index	Japan	Nikkei 500
Belgium	Brussels All-Share Net Return Index	Malaysia	FTSE Bursa Malaysia KLCI
Canada	S&P/Toronto Stock Exchange Composite Index	Netherlands	AEX Index
China	Shanghai Stock Exchange Composite Index	Norway	OBX Price Index
Denmark	OMX Copenhagen 20 Index	Philippines	Philippine Stock Exchange PSEi Index
Finland	OMX Helsinki All-Share Index	Portugal	PSI Geral (General) Index
France	CAC-40 Index	Singapore	Straits Times Index
Germany	CDAX Performance Index	South Korea	KOSPI Index
Greece	Athex Composite Share Price Index	Spain	Madrid Stock Exchange General Index
Hong Kong	Hang Seng Index	Sweden	OMX Stockholm All-Share Index
Iceland	OMX Iceland All-Share Index	Switzerland	Swiss Performance Index
India	Bombay Stock Exchange SENSEX	Taiwan	Taiwan TAIEX Index
Indonesia	Jakarta Composite Index	Thailand	Bangkok SET Index
		United Kingdom	FTSE 100 Index
		United States	Standard and Poor's 500 Index

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.

Conversion to Euro

Economy	Conversion Date	Conversion Rate (per Euro)	Economy	Conversion Date	Conversion Rate (Per Euro)
Austria	31/12/1998	13.7603	Greece	31/12/2000	340.75
Belgium	31/12/1998	40.3399	Italy	31/12/1998	1936.27
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	Spain	31/12/1998	166.386

3-month government bond yield (middle-left graph) The primary sources of the 3-month government bond yields are listed in the table below. The asterisk indicates that data was retrieved directly from the indicated source, and not from Bloomberg.[†]

3-month government bond yields

Economy	Source	Economy	Source	Economy	Source
Australia	Reserve Bank of Australia*	Italy	Bloomberg	South Korea	Korea Financial Investment Association
Belgium	National Bank of Belgium	Japan	Bloomberg	Spain	Corretaje E Informacion Monetaria Y De Divisas, S.
Canada	Bloomberg	Malaysia	Bank Negara Malaysia	Sweden	Bloomberg
China	Bank of Tianjin	Netherlands	Bloomberg	Thailand	Bloomberg
Denmark	Nykredit Bank	Norway	Norges Bank	United Kingdom	Thomson Reuters*
Finland	Svenska Handelsbanken	Philippines	Philippine Dealing & Exchange Corp.	United States	Bloomberg
France	Bloomberg	Portugal	Bloomberg		
Germany	Bloomberg	Singapore	Monetary Authority of Singapore		
Greece	Bloomberg				
Hong Kong	Bloomberg				
India	Bloomberg				

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.

[†]The RMI CRI model uses Germany's three-month Bublic rate for all eurozone countries after their adoption of the euro. For the period before joining the eurozone, their own interest rates are used. Switzerland and Iceland do not use benchmark interest rate input variable for their whole history.

3-month interbank rate (middle-left graph) The primary sources of the 3-month interbank rates are listed in the following table.

Interbank Lending Rates

Economy	Interbank Rate	Source
Australia	AUD Bank Bill 3-month	CMPT - Composite(Tokyo)
Austria	Euribor 3-month	European Banking Federation (EBF)
Belgium	Euribor 3 month	EBF
Canada	Canada Bankers Acceptances 3 Month	Moneyline Telerate
China	Shanghai Interbank Offered Rate Fixing - 3 Month	National Interbank Funding Center
Denmark	Copenhagen Interbank Offered Rates 3 Month	Danish Central Bank
Finland	Euribor 3 month	EBF
France	Euribor 3 month	EBF
Germany	Euribor 3 month	EBF
Greece	Euribor 3 month	EBF
Hong Kong	HKAB Hong Kong Dollar Hibor Fixings 3 Month	HK Interbank Offered Rate (HIBOR) Fixing
Iceland	Central Bank of Iceland ISK Reibor 3 Month Interest Rate Fixing	Central Bank of Iceland
India	INR 3 Month Deposit	CMPN - Composite(NY)
Indonesia	Indonesia Jakarta Interbank Offering Rate 3 Month	Bank Indonesia
Italy	Euribor 3 month	EBF
Japan	Tibor Fixing Rate 3 Month	Japanese Bankers Association
Malaysia	Malaysia Interbank Offered Rate Fixing 3 Month	Bank Negara Malaysia
Netherlands	Euribor 3 month	EBF

Economy	Interbank Rate	Source
Norway	Norway Interbank Offered Rate Fixing 3 Month	Bloomberg
Philippines	Bankers Association of the Philippines Interbank Offering Rates 3 Month PHIBOR	Bankers Association of the Philippines
Portugal	Euribor 3 month	EBF
Singapore	Association of Banks in Singapore SGD Sibor Fixing 3-Month	Association of Banks in Singapore
South Korea	Korea Federation of Banks KORIBOR 3 Month	Bank of Korea
Spain	Euribor 3 month	EBF
Sweden	Stockholm Interbank Offered Rates 3 Month	NASDAQ OMX
Switzerland	LIBOR Libid Limean CHF 3 Month	Bloomberg
Taiwan	Taiwan Interbank Money Center TAIBOR Fixing Rates 3 Month	Taiwan Interbank Money Center
Thailand	Thailand Bibor Fixings 3 Month	Bank of Thailand
United Kingdom	BA LIBOR GBP 3 Month	British Bankers Association
United States	ICAP Capital Markets Domestic Fed Funds 3 Month	CTRB ICAP Fixed Income & Money Market Products

GDP (middle-center graph, left axis) Real GDP year-on-year (YoY) changes are seasonally-adjusted except for China, Hong Kong, Iceland, India, Malaysia, Philippines, Singapore, South Korea, Taiwan and Thailand. The following is a list of primary sources of the GDP data.

Real GDP growth

Economy	Source
Australia	Australian Bureau of Statistics
Austria	Eurostat
Belgium	Eurostat
Canada	Statistics Canada
China	National Bureau of Statistics of China
Denmark	Eurostat
Finland	Eurostat
France	Eurostat
Germany	Eurostat
Greece	Eurostat
Hong Kong	Census & Statistics Department Hong Kong
Iceland	Statistics Iceland

Economy	Source
India	India Central Statistical Organisation
Indonesia	OECD
Italy	Eurostat
Japan	OECD
Malaysia	Department of Statistics Malaysia
Netherlands	Eurostat
Norway	Statistics Norway
Philippines	National Statistical Coordination Board
Portugal	Eurostat
Singapore	Singapore Ministry of Trade & Industry
South Korea	Bank of Korea
Spain	Eurostat

Economy	Source
Sweden	Eurostat
Switzerland	State Secretariat for Economic Affairs
Taiwan	Taiwan Directorate General of Budget Accounting & Statistics
Thailand	National Economic Development Board
United Kingdom	UK Office for National Statistics
United States	Bureau of Economic Analysis

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/cli. 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 Managers 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. The following table lists the indices as well as their primary sources.

PMI

Economy	Index name	Source	Economy	Index name	Source
Australia	Australian Performance of Manufacturing Index	Australian Industry Group	Singapore	Singapore Manufacturing PMI	Singapore Institute of Purchasing & Materials Management
Canada	Ivey Purchasing Managers Index (Canada)	Purchasing Management Association of Canada	South Korea	Business Survey Index on business conditions Manufacturing sector	Bank of Korea
China	China Manufacturing PMI (seasonally adjusted)	China Federation of Logistics & Purchasing	Sweden	Swedbank PMI (seasonally adjusted)	Swedbank Markets
France	Markit France Manufacturing PMI	Markit	Switzerland	Switzerland procure.ch PMI	Credit Suisse
Germany	Markit/BME Germany Manufacturing PMI	Markit	Thailand	Thailand Business Sentiment Index	Bank of Thailand
Italy	Markit/ADACI Italy Manufacturing PMI	Markit	United Kingdom	Markit/CIPS UK Manufacturing PMI	Markit
Japan	Nomura/JMMA PMI (seasonally adjusted)	Markit/Nomura Securities Co.Ltd	United States	ISM Manufacturing PMI (seasonally adjusted)	Institute for Supply Management
Norway	Norway PMI (Seasonally Adjusted)	Danske Bank			

PPI (middle-right graph) The Producers' Purchasing Index or similar indices are presented as YoY changes. The following table shows the indices used and the primary sources for the indices.

PPI

Economy	Index name	Source
Australia	Australia Manufacturing PPI YoY	Australian Bureau of Statistics
Austria	Eurostat PPI Austria Industry Excluding Construction YoY	Eurostat
Belgium	Belgium PPI YoY	Belgium National Institute of Statistics
Canada	STCA Canada Industrial Product Price YoY (not seasonally adjusted)	Statistics Canada
China	China PPI YoY	China Economic Information Network
Denmark	Denmark Wholesale Prices YoY (2005=100)	Denmark Statistics
Finland	Finland PPI (2005=100) YoY	Finnish Statistics Office
France	France PPI (2005=100) YoY	INSEE National Statistics Office of France
Germany	Bundesbank Germany Producer Prices YoY (seasonally adjusted)	Deutsche Bundesbank
Greece	Eurostat PPI Greece Industry Ex Construction YoY	Eurostat
Hong Kong	Hong Kong PPI All Manufacturing Industries YoY (2000=100)	Census & Statistics Department Hong Kong
Iceland	Iceland PPI Main Index YoY	Statistics Iceland
India	India Wholesale Price All Commodities YoY	Press Information Bureau of India
Indonesia	Indonesia Wholesale Prices YoY	Badan Pusat Statistik Indonesia
Italy	Italy PPI Manufacturing YoY (2005=100)	The Italian National Institute of Statistics

Economy	Index name	Source
Malaysia	Malaysia Producer Price Index Goods in Domestic Economy (2005=100) YoY	Department of Statistics Malaysia
Netherlands	Eurostat PPI Netherlands Industry Ex Construction YoY	Eurostat
Norway	Norway PPI Domestic & Export Industry YoY New Classification	Statistics Norway
Philippines	Philippines PPI Manufacturing YoY (2000=100)	National Statistics Office Philippines
Portugal	Portugal Producer Prices Total (2008=100) YoY	Instituto Nacional de Estatistica Portugal
Singapore	IMF Singapore WPI	International Monetary Fund
South Korea	South Korea PPI YoY (2005=100)	Bank of Korea
Spain	Spain PPI YoY (2005=100)	Instituto Nacional de Estadistica
Sweden	Sweden Producers Prices YoY (2005=100)	Statistics Sweden
Switzerland	Producers Price Index YoY	Federal Statistics Office of Switzerland
Thailand	Thailand PPI All Products YoY (2005=100)	Commerce Ministry
United Kingdom	UK PPI Manufactured Products YoY (not seasonally adjusted)	UK Office for National Statistics
United States	PPI By Processing Stage Finished Goods Total YoY (not seasonally adjusted)	U.S. Bureau of Labor Statistics

Money Supply (middle-right graph) YoY growth of money supply uses M3 when it is available for an economy. The exceptions are: China, Indonesia, Norway, Taiwan, Thailand and the United States where M2 is used; 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. The following is a list of primary sources for the money supply data.

Money Supply

Economy	Source	Economy	Source	Economy	Source
Australia	Reserve Bank of Australia	Iceland	Statistics Iceland	South Korea	Bank of Korea
Austria	Eurostat	India	OECD	Spain	Eurostat
Belgium	Eurostat	Indonesia	Bank Indonesia	Sweden	Sveriges Riksbank
Canada	Bank of Canada	Italy	Eurostat	Switzerland	Swiss National Bank
China	The People's Bank of China	Japan	Bank of Japan	Taiwan	The Central Bank of China
Denmark	Danish Central Bank	Malaysia	Bank Negara Malaysia	Thailand	Bank of Thailand
Finland	Eurostat	Netherlands	Eurostat	United Kingdom	Bank of England
France	Eurostat	Norway	Central Bank of Norway	United States	Federal Reserve
Germany	Deutsche Bundesbank /Eurostat	Philippines	Bangko Sentral ng Pilipinas		
Greece	Eurostat	Portugal	Banco de Portugal /Eurostat		
Hong Kong	Hong Kong Monetary Authority	Singapore	Monetary Authority of Singapore		

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. According to S&P, Indonesia has selective default events on March 29, 1999; April 17, 2000 and April 23, 2002. For graphical purposes these are reflected as C grades in the graphs.

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) The Foreign Direct Investment (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. The primary sources are shown in the following table.

Fiscal Budget

Economy	Source
Australia	Bloomberg Indices
Austria	Eurostat
Belgium	Eurostat
Canada	Bloomberg Indices
China	Bloomberg Indices
Denmark	Eurostat
Finland	Eurostat
France	Eurostat
Germany	Eurostat
Greece	Eurostat
Hong Kong	Bloomberg Indices

Economy	Source
Iceland	OECD
India	Bloomberg Indices
Indonesia	World Bank
Italy	Eurostat
Japan	Bloomberg Indices
Malaysia	Bloomberg Indices
Netherlands	Eurostat
Norway	Bloomberg Indices
Philippines	Bloomberg Indices
Portugal	Eurostat

Economy	Source
Singapore	World Bank
South Korea	Bloomberg Indices
Spain	Eurostat
Sweden	Eurostat
Switzerland	Bloomberg Indices
Taiwan	Bloomberg Indices
Thailand	Bloomberg Indices
United Kingdom	Eurostat
United States	U.S. Treasury

PDiR

The Probability of Default implied Rating (PDiR) has been introduced to aid intuition about what different values of 1-year PD from RMI'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 is used to classify firms into PDiR based on their 1-year PD. For example, if a firm has a 1-year PD of 50bps, then it will be classified as BB. The upper bounds for each PDiR are derived using S&P's historical default rates.[†] These default rates are taken as the average one-year default rates (ADR) from 1992-2010 to coincide with the period of RMI's PD.

PDiR	Upper bound (bps)
AAA	0.28
AA	5
A	13
BBB	42
BB	194
B	1075
CCC/C	–

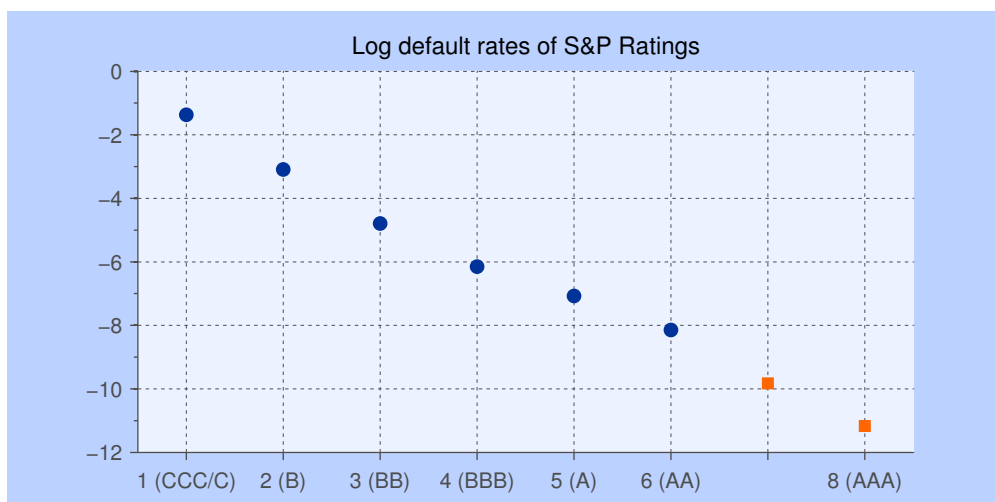
Computing the boundaries between different PDiR classes: The blue circles in the graph below indicate the logarithm of the ADR for S&P firms with ratings from AA down to CCC/C. There have been no defaults within one year for S&P rated AAA firms.

Given the linear relationship between the log default rates and the ratings, it makes sense to take the boundary between PDiR classes as the mid-point of the 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 of AAA firms, a mid-point of observed log ADR cannot be taken since the ADR is zero for S&P rated AAA firms. Instead, a line of best fit can be plotted through the six observed points (blue circles) in order to extrapolate the orange squares. Taking the default rate based on the the first extrapolated orange square results in a boundary that leads to far larger fraction of PDiR AAA firms as compared to S&P rated AAA firms. Therefore, the boundary between AA and AAA is taken as the mid-point between the first and second orange square.



[†]March 2011, [Default, Transition, and Recovery: 2010 Annual Global Corporate Default Study And Rating Transitions](#), Standard & Poor's.

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 financial crisis. 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 30 economies in Asia-Pacific, Western Europe 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 NUS-RMI and the CRI project, please visit our main site at rmi.nus.edu.sg

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