
Quarterly Credit Report

Q4/2011

Volume 1, No 3



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 third issue covers the fourth quarter of 2011. 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 sector, where firms are included based on the Level II Bloomberg Industry Classification. 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 both are 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 2,200 listed firms are publicly available, along with PDs aggregated at the region, economy and sector level for nearly 30,000 firms. The PD system operates in a transparent manner, and a detailed description of our model is provided in a [Technical Report](#) available on our website.

[†]In December 2011, the Credit Rating Initiative was renamed to the Credit Research Initiative, which better reflects the scope of the project

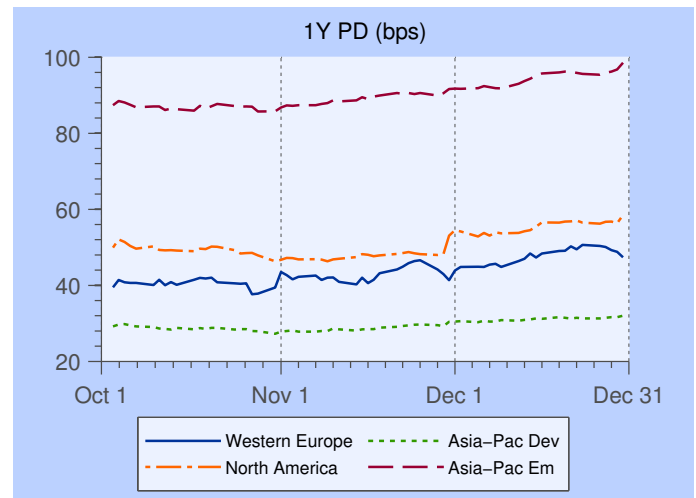
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Global Overview

In Q4 2011, the global economy entered a renewed phase of economic and financial uncertainty. The World Economic Forum identified chronic fiscal imbalances and major systemic financial failures as the major risks to the global economy,¹ which threatened to derail the recovery seen in 2010. Taking into account the negative impacts from the European sovereign debt crisis, the IMF reduced its forecast for global economic growth for both 2012 and 2013.²

The ongoing crisis in Europe escalated during Q4, reflected in a marked increase in the RMI CRI 1-year PD for Western Europe. Signs of financial and economic contagion were apparent beyond peripheral eurozone economies. Through trade and investment with eurozone economies, emerging and export-oriented developed economies faced increased risks, with the PD of Asia-Pacific emerging and developed economies rising considerably in the same period. Pressures also mounted on consumption-oriented developed economies as they grappled with persistent domestic problems, such as high unemployment rates. For example, the credit outlook of the US worsened, which contributed to an increase in the PD of North America. Encouraged by EU leaders' decision to strengthen the European Financial Stability Facility, and to start negotiating a voluntary write down on Greek debts, the credit outlook across the aforementioned regions showed some positive signs during October. Nevertheless, due to persistent problems the signs proved to be short-lived, and the credit outlook worsened in November and December.



Global financial conditions continued to deteriorate in Q4, leading six major central banks to undertake joint action in December to provide their banking systems with liquidity in USD and five other major currencies.³ However, the outlook for credit supply has not improved. In November, the Financial Stability Board (FSB) announced that 29 global banks will have to maintain capital levels higher than Basel III requirements, in a plan that is expected to lead to a decline in credit supply to the real economy.⁴

Looking ahead, as long as an effective resolution to the European sovereign debt crisis remains out of reach, the global economy may well continue to suffer. Furthermore, governments and central banks worldwide are facing a possible stumbling block in stimulating their faltering economies. Massive fiscal stimuli during the 2008-10 financial crisis, have weakened the ability of governments to counteract the effects of the European sovereign debt crisis. Monetary tools are likely to remain constrained by persistent threats of inflation, especially in emerging countries. For debt-stricken countries in Europe, austerity measures are already having a serious impact on the real economy.

In addition, rising unemployment may increase the risk of trade protectionism.⁵ Furthermore, as investors become increasingly risk averse in a turbulent financial market, and banks shrink their lending to meet tightened global and domestic regulatory requirements, financial conditions are generally deteriorating worldwide. Stock markets have fallen hampering corporate equity financing and credit supplies have tightened. Fears are growing that a Lehman-style credit crunch is likely.⁶

In line with these negative factors, the RMI CRI 1-year PD for Asia Pacific, Western Europe and North America economies all ended higher than at the start of Q4. Reflecting their differences in fundamentals and susceptibilities to a looming global downturn, Asia Pacific developed economies experienced the smallest rise of about 3bps in the quarter, while Asia Pacific emerging, Western Europe and North America economies showed larger increases ranging from 8 to 11bps.

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²Jan 19, 2012, [Update: IMF Revises Down 2012, 2013 GDP Growth Estimates -ANSA](#), The WallStreet Journal.

³Dec 1, 2011, [Central Banks Move to Calm Fears](#), The WallStreet Journal.

⁴Nov 4, 2011, [Policy Measures to Address Systemically Important Financial Institutions](#), Financial Stability Board, <http://www.financialstabilityboard.org>

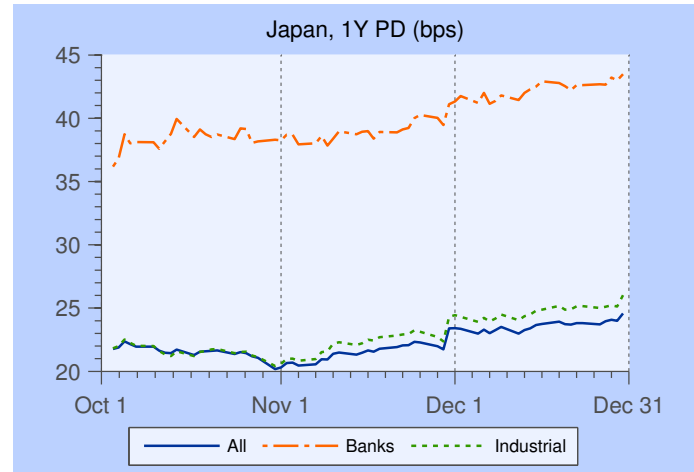
⁵Jan 20, 2012, [IMF warns of threat to global economies posed by austerity drives](#), The Guardian.

⁶Jan19, 2012, [World Bank Stokes Lehman Brothers Fears In Latest Report](#), Forbes.

Asia-Pacific – developed economies

A Japan

Significant challenges, both domestic and from abroad, weighed on Japanese firms in Q4 and threatened to derail the economic rebound of Q3.⁷ Japan's exports fell and the country's trade deficit widened in Q4, as the ongoing European crisis and a slowing Asian economy weakened export demand.⁸ The Yen continued to appreciate and undermined Japan's export-oriented economy, as global investors' flight to safety persisted. At the same time, many Japanese firms with production exposure to Thailand were affected by the 2011 Thai floods, and may see a protracted impact on their supply chains and production lines going forward.⁹ In addition, Japan's labour market continued to weaken during Q4, with the unemployment rate reaching 4.5% in October and remaining at the same level in November. This is high compared to the historical average of 2.6%.¹⁰



In order to counter these external pressures and boost domestic economic growth, a number of government stimulus measures have been unveiled. More specifically, the government enacted a third annual reconstruction budget of JPY12.1tn in October¹¹ and a JPY 2tn fourth supplementary budget in December.¹² In addition, in October, the Bank of Japan (BOJ) boosted its asset purchases by JPY 5tn to JPY 55tn, to provide additional liquidity to the Japanese economy.¹³

Furthermore in December, the government announced a plan to increase currency intervention by JPY 30tn, in order to control the appreciation of the Yen, and reduce negative effects on Japanese exporters.¹⁴

Despite these government efforts, considerable risks continue to confront the Japanese economy. While the boost in reconstruction spending will likely uplift the economy, it may not be able to create sustainable demand in the long term. In addition, the Japanese debt to GDP ratio, the highest amongst all industrialized countries,¹⁵ will increase further as government spending increases. Higher taxes on corporate profits and consumer purchases are likely to be introduced to contain a rapidly widening fiscal deficit.¹⁶ However, this could constrain spending by Japanese consumers and businesses, preventing a rebound in the Japanese economy. High government debt could also place upward pressure on interest rates and may lead to increased borrowing costs for Japanese firms.¹⁶

The credit outlook of Japanese firms remained negative during Q4. Japanese firms' aggregate 1-year PD increased marginally, but continued to be at an elevated level, comparable to the one seen immediately after the March earthquake and nuclear accident.

A.1 Banking Sector

Liquidity conditions remained favourable for Japanese banks during Q4, with the key interest rate staying below 0.1%.¹³ However, earning pressures mounted as domestic demand for credit

declined for 22 consecutive months up to September¹⁷ and only registered a tepid recovery during Q4.¹⁸

Sluggish domestic credit demand and a global economic slowdown were affecting the profitability of Japanese banks, to such an extent that large cost-cutting was planned by some prominent Japanese banks in Q4.¹⁷ Simultaneously, large holdings of Japanese government bonds at domestic banks pose a risk to bank balance sheets. Although the yields of Japanese government bonds are currently very low, a weakening in Japan's fiscal position could place upward pressure on bond yields. Reflecting this risk, a Tokyo based credit rating agency, Rating Investment Information Inc, lowered Japan's sovereign credit rating by one notch to AA in December.⁸ During Q4, both the IMF and the BOJ warned about potential large capital losses at Japanese banks if bond yields were to rise sharply.¹⁹ More specifically, the BOJ reported that major banks in Japan face potential capital losses worth JPY 3.4tn for every 1% increase in bond yields.²⁰ The credit outlook for Japanese banks remained negative during Q4, with its 1-year aggregate PD showing some increase.

A.2 Industrial sector

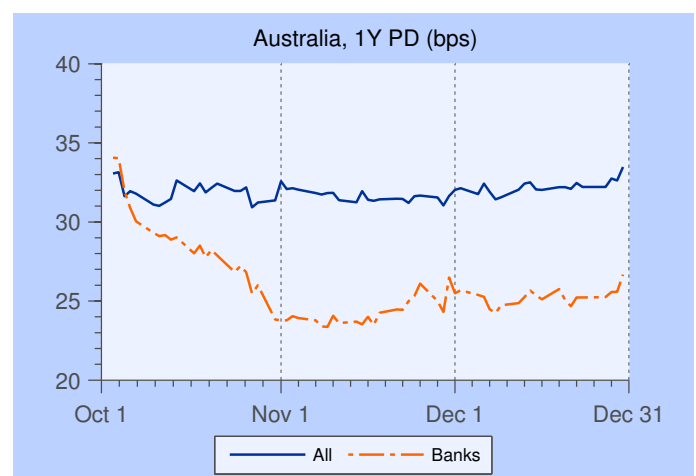
The credit outlook for Japanese industrial firms deteriorated in Q4, as falling overseas demand and an appreciating Yen impacted on the sector's profitability. In December, many Japanese manufacturers revised their earnings estimates downwards⁸ and cut jobs on a large scale.²¹ Panasonic, forecasted its biggest annual loss in 10 years and accelerated plans to eliminate 17,000 jobs, while TDK planned to cut 11,000 jobs, about 12% of its workforce. The Tankan business sentiment index dropped to minus 4 in December from plus 2 in September, indicating growing pessimism among Japanese manufactures due to a deterioration in business conditions.²² The 1-year PD of Japanese industrial firms increased slightly, in line with the negative credit outlook.

B Australia

The Australian GDP expanded 2.5% in Q3, buoyed by strong demand from Asian markets for its resources and strong growth in private consumption.²³ Australian consumer confidence rose 6.3% in November to 103.4,²⁴ and business confidence remained in positive territory.²⁵ Despite a slump in commodity prices which caused Australia's trade surplus to fall to 1.5%, the nation's terms of trade are still close to record highs reached in Q3.

Australia's central bank reduced interest rates twice in Q4, the first rate cuts since April 2009, as inflationary pressures eased.²⁶ The cash rate was lowered by 25bps twice to 4.25% in Q4, as the RBA looked to protect Australian firms from the global economic slowdown.²⁷ Australian companies continued to reduce their leverage and hoard cash in 2011, to protect themselves from the European sovereign debt crisis.²⁸

In November, the government stated that it had almost finalized measures to reduce red tape in the domestic bond market, which should increase liquidity, and ultimately lower borrowing costs for Australian firms.²⁹



However, Australia's trade surplus declined to AUD 1.38bn in November, from AUD 2.01bn in September, with a strong Australian dollar negatively affecting the income of services firms.³⁰ According to the Australian Industry Group, service sector activity contracted in all three months of Q4. After a decline in unemployment in October, the first monthly drop since Q2 2011, the unemployment rate rose to 5.3% in November.³¹

Two additional taxes, one on high profits in the mining sector, and a carbon tax are set to come into effect in July 2012,^{32,33} and could significantly hurt Australian corporate profits.

The credit outlook for Australian firms remains healthier than for firms in other developed Asia-Pacific economies. According to the OECD, Australia is expected to maintain its high growth rate into 2012.³⁴ A relatively healthy economy and low corporate funding costs strengthened the credit outlook of Australian firms in Q4. The 1-year aggregate PD for Australian firms was fairly stable in Q4.

Banking sector

The Q4 interest rate cuts by the RBA may reduce bank profitability, as political pressure to pass on all of the cuts to mortgagors mounted in December.³⁵ Even though Australian banks currently have a higher interest rate margin than their global counterparts, the spread between the rate banks receive on loans and the rate they pay on deposits narrowed 35bps in 2011, to 2.35 percentage points.³⁶ In December, ANZ, the third largest Australian bank, stated it will change key interest rates separately from the RBA, in an attempt to decouple key rates from official RBA changes. ANZ believes that funding costs are almost unrelated to RBA benchmark rates in the current global environment.

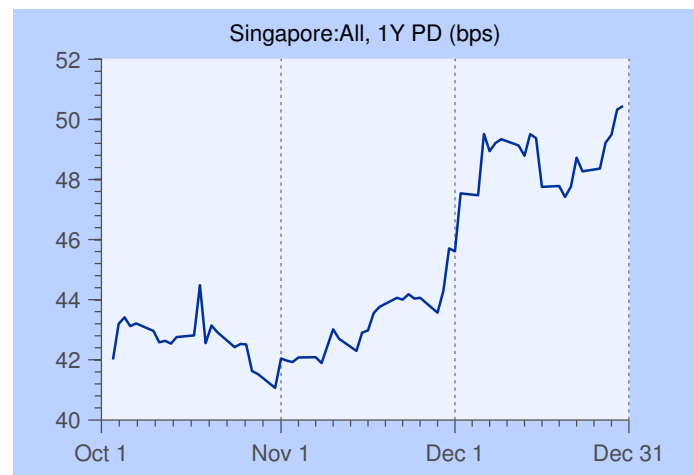
Australian banks are now allowed to sell covered bonds, due to legislative changes in October. This diversifies their sources of funding, which have traditionally been concentrated in wholesale European funding markets. Benchmark covered bond sales during Q4 were priced at levels only slightly lower than domestic prices for senior unsecured bank debt issued in Q3.³⁷ Raising funds in overseas markets also became more expensive as Australian dollar basis swaps increased significantly in Q4.

However, an 11% increase in deposit growth at Australian banks over 2011 has offset higher funding costs in offshore markets.³⁸ In addition, Australian banks have a low proportion of foreign currency denominated assets, so they could source funding from domestic markets, in particular the RBA, if liquidity dries up in offshore markets.³⁹ Commercial and personal borrowing remained listless in Q4 as debt appetites waned, which could ease the funding needs of Australian banks in 2012.⁴⁰

On account of these positive developments, October saw the 1-year PD for Australian banks declining from highs seen in the first three quarters of 2011. However, Australian banks remain vulnerable to higher funding costs in European markets, which is indicated in a steady rise in their PD for the rest of Q4.

C Singapore

After narrowly escaping a technical recession in Q3,⁴¹ Singapore's economy contracted by 4.9% on a quarterly basis in Q4,⁴² as faltering global demand took its toll on the trade-driven economy. Singapore's exports fell 16.2% in October on a yearly basis,⁴³ with shipments to Singapore's biggest trade destination, the European Union, dropping 30.9%. The Singaporean economy may continue to weaken, as a challenging global economic environment weighs on demand for the country's exports. The Monetary Authority of Singapore (MAS) forecasted that GDP growth will slow for the year 2012.⁴⁴



Acknowledging the global slowdown and easing inflation pressures, the MAS softened its monetary policy stance in Q4. An appreciation in the Singapore dollar nominal effective exchange rate (S\$NEER) band will continue but to a lesser extent.⁴⁴ This could alleviate pressures on Singaporean exports and cushion the weakening economy from a global slowdown. Reflecting this, the credit outlook for Singaporean firms was initially optimistic in Q4, with the 1-year aggregate PD declining marginally in October. However, against an overall negative outlook for global demand, the credit outlook for Singaporean firms is downbeat, with the 1-year aggregate PD trending upwards in November and December.

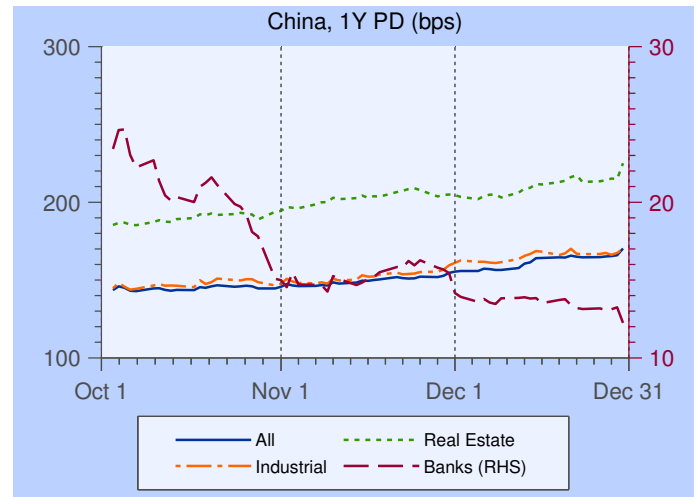
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- ⁷Nov 11, 2011, [Japan's Economic Rebound From Quake May Be Short-Lived Amid European Woes](#), Bloomberg.
- ⁸Dec 21, 2011, [Japan Exports Fall a Second Month as BOJ Sees Weakness on Europe: Economy](#), Bloomberg.
- ⁹Dec 23, 2011, [Japan Supply Chains Still Hampered by Thai Flooding](#), The Journal of Commerce.
- ¹⁰Source: [Trading Economics](http://www.tradingeconomics.com), <http://www.tradingeconomics.com>
- ¹¹Oct 22, 2011, [Cabinet OKs 12.1 trillion third extra budget to fund reconstruction work](#), The Japan Times.
- ¹²Dec 1, 2011, [Japan Premier Boosts Spending to Counter Economic Uncertainty](#), The Wall Street Journal.
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- ¹⁴Dec 21, 2011, [Spigots Opened in Push to Tame Yen](#), The Wall Street Journal.
- ¹⁵Oct 29, 2011, [Japan's national debt to exceed \\$13.5 trillion](#), NHK World.
- ¹⁶Nov 28, 2011, [Japan Risks Rise in Long-Term Rates on Growing Debt: OECD](#), CNBC.
- ¹⁷Nov 14, 2011, [Japan banks struggle; Mizuho to cut 3,000 jobs](#), Reuters.
- ¹⁸Jan 11, 2012, [Japan Dec bank loans up 0.4 pct yr/yr](#), Reuters.
- ¹⁹Jan 9, 2012, [IMF stress-tests Japanese banks](#), The Japan Times.
- ²⁰Jan 6, 2012, [IMF to test Japanese banks' vulnerability to govt bonds](#), Asian Banking & Finance.
- ²¹Nov 29, 2011, [Japan Unemployment Rate Exceeds All Estimates](#), Bloomberg.
- ²²Dec 15, 2011, [Japan Tankan Worse Than Expected](#), The Wall Street Journal.

- ²³Dec 8, 2011, [Miners and households drive recovery as GDP growth exceeds Treasury forecasts](#), The Australian.
- ²⁴Nov 9, 2011, [Australian Consumer Confidence Jumps](#), Bloomberg.
- ²⁵Nov 2011, [Monthly Business Survey](#), National Australia Bank, <http://www.nab.com.au>
- ²⁶Jan 16, 2012, [Inflation rise unlikely to halt RBA rate cuts](#), The Sydney Morning Herald.
- ²⁷Dec 6, 2011, [Australia Central Bank Braces for Global Slowdown](#), The Wall Street Journal.
- ²⁸Nov 5, 2011, [Companies stash cash to ride out global crisis, says RBA](#), The Australian.
- ²⁹Nov 29, 2011, [Swan to urge business leaders to kick-start bond market](#), The Australian.
- ³⁰Jan 6, 2012, [Dollar's rise leaves tourism 'doing it tough'](#), The Sydney Morning Herald.
- ³¹Source: [Australian Bureau of Statistics](#), <http://www.abs.gov.au>
- ³²Nov 9, 2011, [Australia enacts carbon tax—barely](#), Financial Times.
- ³³Nov 22, 2011, [Update 2-Australia's mining tax passes biggest political hurdle](#), Reuters.
- ³⁴Dec 6, 2011, [Australia Central Bank Braces for Global Slowdown](#), The Wall Street Journal.
- ³⁵Dec 9, 2011, [With a wary eye offshore, big banks bite the bullet on rates](#), The Australian.
- ³⁶Jan 11, 2012, [ANZ Bank Weakens Link to RBA as Margins Narrow: Australia Credit](#), Bloomberg Businessweek.
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- ³⁸Nov 22, 2011, [Big four banks cash in on rise in deposits](#), The Australian.
- ³⁹Oct 18, 2011, [RBA: Australia Banks Find Funding Easier Than Euro Rivals](#), CNBC.
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- ⁴¹Oct 15, 2011, [Singapore avoids technical recession, growth outlook dims](#), Straitstimes.
- ⁴²Jan 3, 2012, [Singapore's Q4 GDP grows by 3.6% on-year, contracts by 4.9% on-quarter](#), Channel News Asia.
- ⁴³Nov 16, 2011, [Singapore October Exports Plunge](#), The Wall Street Journal.
- ⁴⁴Oct 14, 2011, [MAS Monetary Policy Statement](#), Monetary Authority of Singapore, <http://www.mas.gov.sg>

Asia-Pacific – emerging economies

A China

China's export-oriented economy faced increasing challenges in Q4, as a deepening European economic and financial crisis and a weak US economic recovery weighed on international demand for the country's products. Chinese exports lost momentum in Q4, with year-on-year export growth declining in every month of Q4.^{45,46} China's HSBC Manufacturing Purchasing Managers Index (PMI) indicated a contraction in manufacturing activity in both November and December, the first consecutive contraction in manufacturing activities since March 2009.⁴⁷ In November, foreign direct investment (FDI) in China declined year-on-year for the first time in 28 months, amid growing concern about a slowdown in the Chinese economy.⁴⁸ Pessimism was also reflected in a flattening yield curve for bonds issued by some of China's largest banks.⁴⁹



The Chinese government clearly shifted from an anti-inflationary stance towards a pro-growth monetary stance, as it strived to safeguard China's economic growth in the course of ongoing global uncertainty during Q4. The government has pledged to increase government spending in order to expand domestic demand,⁵⁰ and augmented financing support for small and medium-sized enterprises (SMEs) in need of cash.⁵¹

Despite these government efforts, considerable challenges remain. An increase in domestic spending, advocated as an alternative to economic dependence on exports, may prove difficult. China's inflation rate has remained high, and reached 5.4% in 2011,⁵² above the official target of 4%. This could continue to restrict consumer spending power and further complicate a shift to domestic consumption.⁵³ In addition, large local government debt may significantly impair the amount available for economic stimuli.⁵⁴

These challenges have weakened the credit outlook for Chinese firms. For similar reasons, China's industrial sector is facing a worsening credit outlook. For Chinese firms on an aggregate level and firms in the Chinese industrial sector, the 1-year PD rose notably during Q4.

Banking and real estate sectors

During recent years, shadow banking has grown explosively in China, with extended credits reaching an estimated RMB 10.4tn (USD 1.65tn) in Q1 2011.⁵⁵ Recognising the risk such activities pose to the banking system, Chinese banking regulators ordered banks to start moving informal loans onto their balance sheets in October.⁵⁶ The government announced plans in November to standardize Chinese bond markets, in order to create a more liquid and transparent source of financing for Chinese firms.⁵⁷ Despite these changes, the IMF believes China's shadow banking system remains a risk to the banking sector, due to a lack of supervision and transparency.⁵⁸

Another major issue for Chinese banks lies in the country's property market, which experienced notable declines in Q4 as the government initiated curbs on property prices. In October, the

volume of Chinese property sales fell 11.6% on a yearly basis,⁵⁹ marking the worst performance for the property sector since 2009. In addition, housing prices fell during the four months up to December.⁶⁰ Declines in the property market may cause a rise in bad loans at Chinese banks, as property developers struggle with falling sales, affecting their ability to repay banks. This pressure is set to increase on Chinese banks as the government attempts to cool the overheated property market.⁶¹ Accordingly, the Chinese real estate sector is facing a worsening credit outlook. Its 1-year PD steadily rose throughout Q4 with increases in benchmark rates by the RBI.

Furthermore, an estimated RMB 3.96tn in outstanding bank loans to local government financing vehicles weigh on the stability of the Chinese banking system.⁶² A large number of these loans are to property developers, guaranteed by local governments. Despite repeated warnings from Chinese banking regulators to reduce the exposure to local governments, banks continued to increase their government lending in Q4.⁶³ A lack of control in lending to local governments could affect the profitability and credit outlook of Chinese banks.

In an attempt to provide more liquidity to domestic firms, the People's Bank of China (PBOC) lowered the reserve requirements for major banks to 21% during December, the first such move in nearly three years.⁶⁴ The China Banking Regulatory Commission (CBRC) postponed toughened capital requirements for Chinese commercial banks until the second half of 2012.⁶⁵ The lower restrictions on commercial banking activities provided some uplift to the credit outlook of the Chinese banking system. The 1-year PD of Chinese banks decreased slightly during the quarter.

B India

† The Indian economy weakened in Q2 2011, with GDP growth falling below 7%, the slowest growth rate in two years. Economic and financial indicators released in Q4 pointed to further economic decline in the second half of the year.⁶⁶ The depreciation of the rupee continued in Q4, with the rupee falling 17% against the USD between August and December. FDI inflows retreated 34% in October.⁶⁷ The government avoided lifting ownership restrictions on FDI in Q4, an important source of capital needed to improve the Indian economy. Reflecting this, a government plan to open the USD 450bn domestic supermarket sector to foreign firms was shelved indefinitely in December, two weeks after it was announced.⁶⁸ A lack of clarity on economic policies contributed to a decrease in Indian firms' foreign borrowings, as approvals for such borrowings fell to USD 1.2bn in November, from USD 4.12bn in July.⁶⁹

Soaring inflation and aggressive monetary tightening measures taken by the Reserve Bank of India (RBI) degraded the liquidity positions of Indian firms in Q4. The RBI has increased the benchmark repurchase rate 13 times since March 2010, to 8.5% on December 31. An increase in bank funding costs fed through to the real economy in Q4, increasing the cost of borrowing for Indian firms.⁷⁰ In addition, bank lending to Indian firms decelerated in Q4, with bank lending growth slowing to 15.9% in December from 21.4% in September.⁷¹

Inflation fell sharply in December to 7.5% from 9.1% in November,⁷² and the RBI signalled a possible shift to a more accommodative monetary stance in a monetary policy review near the end of Q4.⁷³ This fuelled market speculation that the RBI could reduce the cash reserve ratio (CRR) from the current 6%.⁷⁴ However, the RBI may remain reluctant to implement monetary easing and liquidity support policies,⁷⁵ as imported inflation could remain high while the rupee remains weak.⁷⁶

† The graph for the aggregate PD of Indian sectors cannot be displayed due to issues in the relative size calculation. No prices were given for the shares in 1200 Indian companies in December, leading to a large increase in the median market capitalization used in the relative size calculation. We are testing adjustments to the relative size calculation to avoid this effect in the future.

Years of foreign debt accumulation, driven by high domestic borrowing costs, have exposed Indian firms to high refinancing risks. Indian firms need to refinance a combined USD 16bn in short-term foreign debt before March 2012.⁷⁷ Investors and credit rating agencies are concerned that the current financial and regulatory climate are threatening Indian firm's ability to repay foreign debts.^{78,79}

Indian firms are facing a reduction in loans from deleveraging European banks.⁸⁰ Furthermore, Indian firms are experiencing an increase in their foreign currency borrowing costs, with interest rates in global markets increasing in Q4 as the European Sovereign debt crisis deteriorated.⁸¹ In addition, the decline in the rupee has made servicing foreign currency debt more expensive.⁸²

A weakened domestic economy, high borrowing costs and a lack of policy support are expected to continue to weigh upon the credit outlook of Indian firms. In line with this, the 1-year aggregate PD for Indian firms trended upwards during Q4.

B.1 Banking sector

No significant signs of stress on bank deposit funding emerged in Q4. The RBI deregulated savings bank deposit rates in October, in a move that was expected to raise the cost of funds and squeeze margins.⁸³ The largest Indian banks are partly state-owned, and previously benefited from a comparatively low savings rate of 3.5%, which was largely regarded as a safety net against the cost of maintaining millions of small accounts. Before the October change, savings rates were fixed at 4% in an environment where banks could extend commercial loans at rates above 8.5%.

Despite this, at the end of the fourth quarter, only a handful of smaller private sector and foreign banks had increased the rates they were paying on deposits.⁸⁴ A majority of these banks are eager to expand their deposit base in India, and generally have a lower current and savings account ratio. However, these banks are limited by small branch networks, and significant competition for deposits has not occurred, as large partly state-owned banks have maintained their majority share of deposits.

Liquidity strains persisted in the Indian banking system during Q4. Indian banks significantly increased their borrowing from the RBI in the fourth quarter, as rates in the interbank market soared in line with increases in benchmark rates by the RBI.⁸⁵ In December, overnight rates in the interbank market reached 9.80%, the most since October 2010.

Bank lending growth continued to slow during Q4, as high interest rates deterred potential borrowers. Annual growth in bank lending slowed to 17.6% in November, compared to 24.4% at the end of 2010.⁸⁵ In addition, Indian banks experienced a slight deterioration in asset quality in Q3, a trend the RBI expected to continue into Q4.⁸⁶ The RBI identified this as the most significant risk facing Indian banks. Non-performing loan ratios are expected to increase on rupee-denominated loans, as high interest rates and an economic slowdown weigh on borrowers. The depreciation of the rupee could further increase the risk of bad loans on Indian bank balance sheets.⁸⁷ The RBI believes only 40% of these loans are hedged.

Moreover, if the new capital requirements proposed by the RBI in December are accepted as is, Indian banks will have to comply with capital ratios that are more stringent than Basel III standards.⁸⁸ Major changes in what is considered core Tier 1 capital could be a potential challenge for Indian banks,⁸⁹ and may dampen future lending capacity. On a positive note, Indian banks may expand their domestic lending businesses as European banks deleverage.⁹⁰

The credit outlook for Indian banks has declined, as banks face increased funding pressures, slower lending growth and an increase in non-performing loans. The 1-year PD for India's banking sector increased moderately during Q4.

B.2 Industrial sector

The Indian industrial sector showed signs of weakness in Q4, with industrial output contracting 5.1% in October.⁹¹ Capital goods production, typically an indicator of investment sentiment, fell by 25.5% in October. The cost of crude oil and other raw materials are likely to remain high while the rupee remains weak.⁹²

On the other hand, November estimates of India's industrial production showed a 5.9% year-on-year growth,⁹³ implying a mixed picture for the Indian industrial sector. However, the overall credit outlook for the Indian industrial sector has worsened, with its PD rising slightly in Q4.

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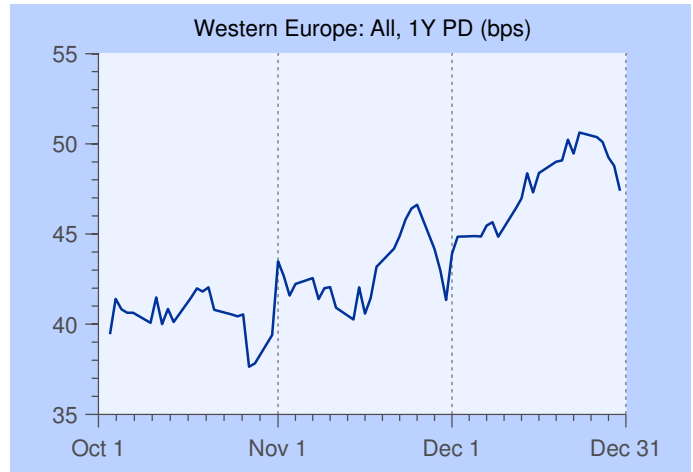
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Western Europe

A Overview

During Q4, European firms continued to face challenges arising from the European debt crisis, including a looming risk of recession and a credit crunch. An increase in funding costs continued to affect the profitability of European firms. The two-year old European debt crisis has shown little sign of easing despite the efforts of European politicians. In November, European governments agreed to leverage a portion of the EUR 250bn remaining in the European Financial Stability Facility (EFSF) 4 or 5 times to EUR 1tr.⁹⁴ The EU summit in early December concluded with agreements



that should lead to a 'fiscal compact' within the eurozone, and the acceleration of EFSF leveraging. In addition, both the G20 meeting and the EU summit delivered inter-governmental agreements to boost the resources of the IMF, in order to help struggling eurozone economies.

However, critical problems remained unaddressed. The ECB maintained its tough stance against purchasing government bonds en masse, while Germany continued to oppose Eurobond proposals.⁹⁵ In addition, international support remained uncertain. Countries with large foreign currency reserves, such as China, have not yet committed to increasing their support of the EFSF.⁹⁶ The IMF failed to amass the targeted amount of funds from European governments set out in the EU summit, falling EUR 50bn short of the EUR 200bn target.⁹⁷

In light of these volatile developments, negative sentiment persisted in European financial markets. Greece and Portugal continued to suffer from high borrowing costs, while larger economies such as Italy and Spain came under increased pressure, and saw their borrowing costs rise to record highs. Other economies, traditionally viewed as economically and fiscally strong, also became victims of contagion in Q4, as Fitch, Moody's and S&P signaled that the current sovereign ratings in the eurozone may be unsustainable. The three ratings agencies placed a number of eurozone sovereigns on negative rating watch, including the ratings of Germany, France, and the EFSF itself.⁹⁸ A potential downgrade of important European sovereigns would also threaten the credit rating of the EFSF, and its ability to fund itself in the market.[†]

Under the weight of the intensifying European debt crisis, the risk of a recession has been building in Europe. The OECD warned that the eurozone may enter a mild recession, with overall economic growth forecasted to slow from 1.6% in 2011 to 0.2% in 2012.⁹⁹ Signs of an economic slowdown have also surfaced in European economies outside the eurozone, such as the UK.¹⁰⁰ Meanwhile, concerns about a potential credit crunch in many parts of Europe are growing, as banks and investors tighten the supply of credit.¹⁰¹ Amidst a debt crisis that has slowed the European economy and a tightening in credit supply, European firms faced a worsening credit outlook in Q4. Aside from a slight initial decrease, the aggregate 1-year PD for European firms increased noticeably throughout the period. The PD is considerably higher than in early 2010 when it registered a low of 17bps in March.

[†]S&P subsequently downgraded the sovereign ratings of 14 eurozone countries on January 13. France and Austria were downgraded to AA+ from AAA, with Italy, Spain and Portugal downgraded two notches each. Taking these rating changes into account, S&P downgraded the credit rating of the EFSF to AA+ on January 16.

B Banking sector

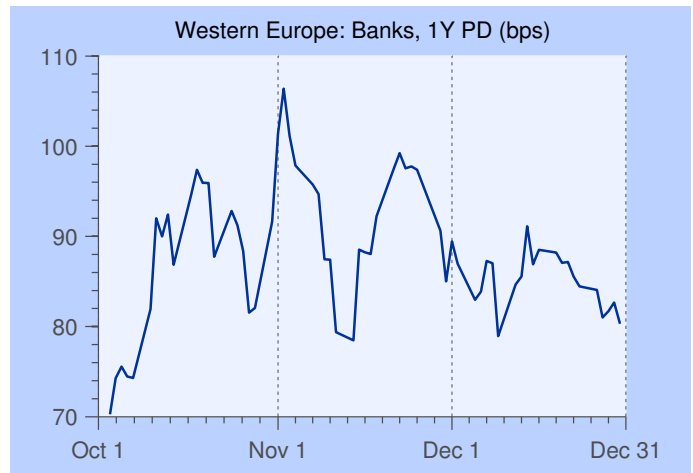
Since the onset of the European debt crisis, European banks have been confronted with a multitude of problems. Q4 witnessed an escalation in the scale and depth of these problems, compounding the credit outlook of European banks.

Funding and liquidity problems intensified for European banks. While the ECB reduced its key interest rates by 50bps during Q4 and introduced 3-year loans and other liquidity-boosting measures, eurozone banks continued to face tightening liquidity in the interbank market. In a continuing reluctance to lend to

each other, eurozone banks deposited EUR 452bn on December 27 at the ECB. This was the highest amount in 2011 and a week after the ECB's first allotment of 3-year loans.^{102,103}

US money market funds continued to reduce US dollar funding to European banks, bringing their collective exposure to the region's banks to a record low of about one third of their total assets at the end of November 2011.¹⁰⁴ Persistent funding strains were also reflected in the cost of borrowing US dollars. The euro-US dollar basis swap widened to the most negative level since 2008 in late November 2011.¹⁰⁵ Meanwhile, deposit flight at banks in several financially-weak countries continued. This has created fierce competition for deposits between banks, with banks paying higher interest on deposits, increasing their effective cost of funding.¹⁰⁶ Illustrating some of the problems faced by European banks in Q4, the French and Belgian government in October split and bailed out the Franco-Belgian bank Dexia, which had been under severe pressure since late September due to its heavy reliance on short-term funding, and exposures to Greek and Italian sovereign bonds.¹⁰⁷

Looking ahead, notwithstanding official measures introduced to improve funding and liquidity conditions, European banks still face considerable risks. Mario Draghi, the ECB president, warned that European banks and their governments - with about EUR 500bn of bonds maturing in Q1 2012 - are facing the risk of significant refinancing pressures, as they will be competing to attract funding in financial markets.¹⁰⁸ Furthermore, European banks could experience increased funding costs if their respective governments are downgraded by credit rating agencies. Increased use of secured financing, which is backed by bank assets, could confront European banks with high levels of 'asset encumbrance,' which may reduce their ability to secure collateralized and unsecured financing in the near future.¹⁰⁹ Another major problem confronting European banks lies in their assets. The EBA required banks to value their sovereign debt holdings at market values when calculating capital ratios in Q4. This left a collective capital shortfall of EUR 114bn on December 13, higher than provisional estimates made in October and July. Many European banks which have been selling peripheral European sovereign bonds to shore up their capital bases suffered losses.^{110,111,112} In addition, there is a risk that eurozone banks might use cheap ECB funds to engage in carry trades involving sovereign bonds, which may further intertwine the balance sheets of eurozone banks with sovereign debts.¹¹¹ The 50% write-down on existing Greek sovereign debts, announced by EU leaders in late October,¹¹³ although currently under negotiation with private investors as of the time of writing this report, will result in losses on these debts;¹¹⁴ Vega Asset Management, a Spanish hedge fund believes the eventual write-down is likely to amount to a net present value loss of more than 50%. Vega is a member of the steering



committee for bondholder negotiators.¹¹⁵

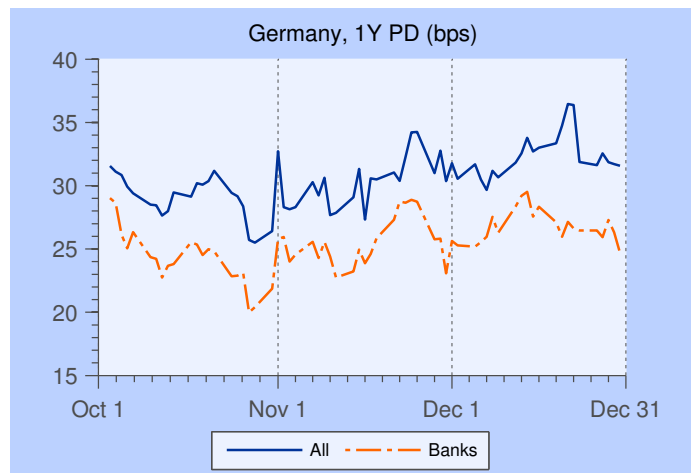
A write-down above the currently negotiated 50% would have even more negative implications for the profit prospects of European banks. While the size of the total write-down may be affordable, a number of eurozone banks issued profit warnings in Q4. Banks that have not yet recognized losses on Greek bonds are expecting a significant effect on future profits.

Meanwhile, earning pressures are mounting on European banks as they deleverage in order to meet the EBA's 9% Core Tier 1 capital ratio requirement by June 2012,^{116,117} at the same time as they are being confronted with a decline in loan demand.¹¹⁸ The anticipated reduction in loan assets, resulting from tighter lending standards, asset sales and lower demand, is expected to harm European banks' earnings, and reduce their ability to meet EBA capital requirements.¹¹⁹ Finally, policy changes, and a weakening in government finances, may lead to a reduction in sovereign support for European banks. This was one of the main reasons why in November Moody's decided to place the subordinated debt of 88 European banks under review for possible downgrades.¹²⁰ S&P downgraded 6 European banks in November when the rating agency changed its methodology to reflect a reduction in government support.¹²¹

The credit outlook for European banks is negative due to the various factors mentioned above. While European banks' aggregate 1-year PD increased moderately over the period, it showed significant variability that may be attributed to the volatile development of the European crisis. The PD for European banks was considerably higher in Q4 than the PD recorded before the start of the European sovereign debt crisis. In January 2010, the PD for European banks was 30bps.

C Germany

Although the German economy showed some encouraging signs of economic health during Q4, the outlook is less positive. Germany's industrial orders rebounded strongly in October, but ongoing recession fears in Europe continued to cloud the country's export prospects, with Europe being Germany's largest trading partner.¹²² Meanwhile, despite a rise in German business confidence from October to November,¹²³ the prospects of German businesses for the next six months are less optimistic.¹²⁴



The German manufacturing PMI fell to 47.9 in November, the lowest level since September 2009, and rose slightly in December to 48.4, with a fall in new business and output potentially decreasing the revenues of German firms.¹²⁵ The economic environment in broader Europe and in the US is driving this decline.¹²⁶

On the other hand, despite Europe's ongoing debt and financial crisis, credit conditions for German businesses remained supportive in Q4. In spite of a slight increase in credit constraints, bank loans remained accessible to German companies under acceptable conditions.¹²⁷ Nonetheless, as Germany's recent weak auction of government bonds indicates,¹²⁸ there is a chance that Germany may fall prey to the European debt crisis, creating uncertainty about the future credit conditions that German firms face. Moody's November downgrade of 12 German Landesbanken, public sector banks that provide commercial banking services to small and medium sized German companies, could lead to higher funding costs for German firms.¹²⁹

On the whole, Germany's credit outlook, while presently underpinned by the country's relatively strong economic and financial position in Europe, is still facing considerable challenges. Germany's 1-year aggregate PD at the end of Q4 was relatively unchanged from the start of the quarter, exhibiting some volatility during Q4.

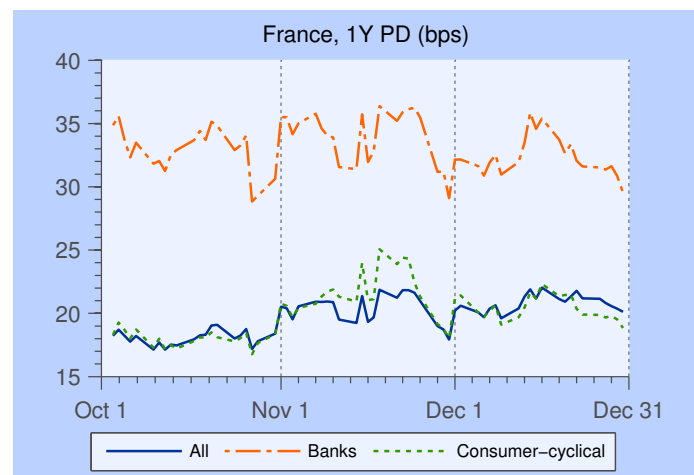
Banking sector

Amid a deepened European sovereign debt crisis, underlying vulnerabilities in German banks' funding and capital positions were exposed in Q4. Although German banks are perceived as financially stronger than their European peers, US dollar funding available to German banks started to decline noticeably in Q4, as the top 10 US money market funds slashed their exposures to German banks by 16% during October.¹³⁰ At the same time, increased doubt about the credit worthiness of the German government^{131,132} created concern that German banks could potentially face higher funding costs.¹³³ Moreover, the capital position of German banks is increasingly uncertain due to large exposures to Italian, Spanish and Greek sovereign debts. Based on the EBA's December stress test, German banks have a collective capital shortfall of EUR 13.1bn, nearly triple the result of stress tests in October.¹³⁴

Despite the aforementioned weaknesses, German banks can resort to state support by transferring troubled assets to a government-owned 'bad bank', or recapitalize themselves. The credit outlook for German banks saw some slight improvement during Q4, as the German banking sector's 1-year aggregate PD remained flat in Q4.

D France

Different from export-oriented Germany, whose challenges largely came from weakening export markets, the consumer-oriented French economy faced a potential credit crunch, government austerity measures and a deteriorating employment market in Q4. French banks reduced lending to households and non-financial companies in November,¹³⁵ signalling a potential credit crunch. Soaring unemployment rates, which reached a 12-year high in November,¹³⁶ will be another significant problem for French firms. A decrease in household incomes would negatively affect economic activity. In addition, EUR 65bn worth of austerity measures, mainly in the form of tax hikes and welfare cuts could further reduce the revenues of French firms.¹³⁷ As a result, France may be poised for an economic slowdown following a rebound in the Q3 2011.¹³⁸ According to France's National Institute for Statistics and Economic Studies, the French economy is expected to suffer a short recession, with an estimated contraction of 0.2% in Q4, and a further contraction of 0.1% in Q1 2012.¹³⁹ Against these backdrops, the credit outlook for French companies continues to be downbeat. France's 1-year aggregate PD increased over Q4.



In addition, EUR 65bn worth of austerity measures, mainly in the form of tax hikes and welfare cuts could further reduce the revenues of French firms.¹³⁷ As a result, France may be poised for an economic slowdown following a rebound in the Q3 2011.¹³⁸ According to France's National Institute for Statistics and Economic Studies, the French economy is expected to suffer a short recession, with an estimated contraction of 0.2% in Q4, and a further contraction of 0.1% in Q1 2012.¹³⁹ Against these backdrops, the credit outlook for French companies continues to be downbeat. France's 1-year aggregate PD increased over Q4.

D.1 Banking sector

The credit worthiness of French banks is affected by the ongoing European sovereign debt crisis, largely due to their reliance on short-term wholesale funding.¹⁴⁰ Moody's cited this as one of the main reasons behind their decision to downgrade the rating of the three largest French banks in early December.¹⁴¹

French banks continued to face intense funding and liquidity pressures in Q4, with the eight largest US money market funds cutting lending to French banks by 68% in November.¹⁴² Meanwhile, signs emerged that deposits at French banks are decreasing. CitiGroup estimated in Q3 2011 that non-retail deposits started transferring from France's Societe Generale and BNP Paribas to safer banks in countries like Germany.¹⁴³ Moreover, large exposures to peripheral European sovereign bonds¹⁴⁴ and a possible downgrade of France's sovereign credit rating could increase pressure on the asset, funding and capital positions of French banks.¹⁴⁵ Taking these factors into account, Moody's downgraded the ratings of BNP Paribas, Crédit Agricole and Société Générale in December.¹⁴⁶ Although the 1-year aggregate PD for French banks declined moderately over Q4, the PD remained elevated compared to Q3, reflecting heightened downside risks facing French banks.

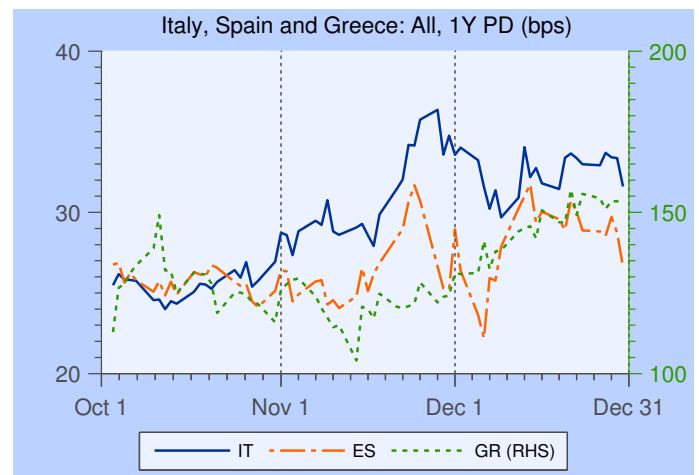
D.2 Consumer cyclical sector

French consumer sentiment appeared to be intact in Q4, with a recovery in the optimism of French service-sector companies in December. An increase in the French PMI to a high for the quarter in December, also signaled stable consumer sentiment. However, due to uncertainties created by the European sovereign debt crisis, there is a risk that French consumer sentiment could still drop.¹⁴⁷

The French consumer-cyclical sector's credit outlook was rather volatile during Q4, as its 1-year aggregate PD increased markedly in November, but in December returned to levels recorded during October.

E Greece, Spain and Italy

Italy, Spain and Greece all experienced changes in political leadership in Q4, with the new governments all announcing tough austerity measures.^{148,149,150} The Italian and Spanish austerity packages, amounting to EUR 30bn and EUR 8.9bn respectively, are expected to lead to a further economic slowdown in their debt-laden economies. Italy is facing a potential 0.4 to 0.5% contraction in 2012,¹⁴⁹ while the Spanish economy is forecasted to contract 0.2% to 0.3% in both Q4 2011, and Q1 2012.¹⁵¹ Meanwhile, Greece could see its recession extend well into 2012 and 2013.¹⁵²



Alarmingly, Italian 10-year government bonds breached the feared 7% yield level multiple times in Q4. Persistent sovereign yields above 7% previously forced Greece Ireland and Portugal to accept international bailouts. Spanish 10-year government bonds approached 7% in November, reaching a high of 6.7% on November 25. Troubled public finances affected the real economy in Q4. For example, high debt burdens caused Spanish municipalities and semi-autonomous regions to defer payments to private companies which provide supplies to the public sector, and public hospitals have delayed payments to pharmaceutical companies.¹⁵³

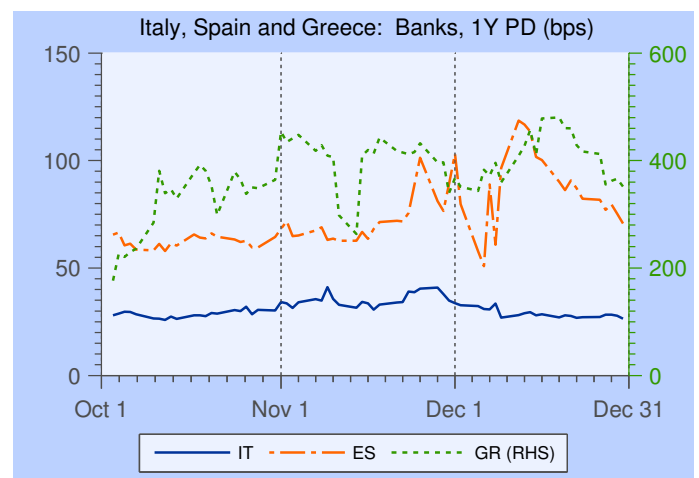
The credit outlook is pessimistic for firms in all three countries. Italy is facing a possible credit crunch, as increasing market hostility and higher EBA capital requirements may affect banks' ability to lend to Italian firms.^{154,155}

Continuing deposit outflows at Spanish and Greek banks may exacerbate current credit crunches in these economies, placing further funding pressures on Spanish and Greek firms.¹⁵⁶ Notably, Spain registered a record annual decline in bank lending in September, the largest decline since 1962.¹⁵⁷

To sum up, on account of a bleak outlook for economic and credit conditions, Italian, Spanish and Greek companies are facing mounting pressures in generating revenue and obtaining credit, leading to a deterioration in the credit outlooks for these firms. The 1-year aggregate PD for Greek firms increased the most during Q4, while the PD for Italian firms increased at a lesser extent. The PD for Spanish firms also increased during Q4, exhibiting larger fluctuations from the end of November.

Banking sector

Escalating funding and liquidity strains on Italian and Spanish banks in Q4 were driven by an increase in pessimistic sentiment among depositors, and in the market at large. Notably, a number of large Italian and Spanish banks reported double-digit percentage declines in their institutional client deposits in Q4.¹⁵⁸ Continued deposit outflows has led to a decrease in the deposit base of Spanish and Italian banks, while intense competition for deposits through higher interest rates, has made it harder for banks to raise retail funding at acceptable conditions. Moreover, as S&P cited when it downgraded 24 Italian banks in October,¹⁵⁹ the cost of market financing for banks in these economies could rise in line with increased sovereign borrowing costs.¹⁶⁰



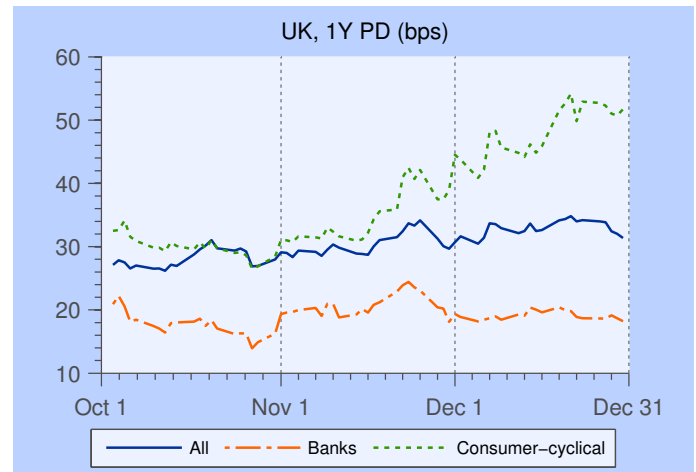
Greek banks are experiencing the same funding and liquidity problems, but with potentially more severe impacts. Overall deposits at Greek banks were estimated to decrease by EUR 1.5 to EUR 2bn every month in 2011, and had decreased 15.4% year-on-year in November.^{161,162} Wholesale funding has long been inaccessible, leaving Greek banks relying on liquidity support from the ECB and the Greek central bank. This support is only available as long as Greek banks can post eligible collateral with the ECB. However, Greek banks are currently depleting their stocks of eligible securities,¹⁶³ and are facing uncertainty over the ECB's acceptance of a number of new securities as collateral. One example is the EUR 30bn of Greek government-guaranteed bank bonds that were issued to be used as collateral, which are yet to be accepted for liquidity operations.¹⁶⁴

A deterioration in asset quality is another problem for Greek, Italian and Spanish banks. Non-performing loans at Spanish banks, a majority of which are in the real estate sector, reached 7.4% of total lending in Q4, the highest level since 1994.¹⁶⁵ Despite the ECB's 3-year bank refinancing operation on December 21- aimed at easing market concerns- yields on Italian government bonds remained unsustainable,¹⁶⁶ which may ultimately result in further losses on the sovereign bond holdings of Italian banks. Greek banks, with a collective holding of EUR 45bn in Greek government bonds, face large losses from the 50% write-down on Greek government bonds currently under negotiation.¹⁶⁷

The challenges for Italian, Spanish and Greek banks point to a gloomy credit outlook. The 1-year aggregate PD for Italian and Spanish banks remained high during Q4, compared to PDs recorded in the middle of 2011. The 1-year aggregate PD for Greek banks almost doubled during Q4.

F UK

In Q4, the UK economy was confronted with a number of economic challenges, stemming from both domestic and overseas problems. According to estimates by the National Institute of Economic and Social Research, UK GDP slowed to 0.1% in Q4, down from 0.6% in Q3. Output was still well below the previous GDP growth peak in 2008.¹⁶⁸ The ongoing European debt crisis weakened the UK's exports in Q3 2011, with the UK's current account deficit widening to the highest level since 1955.¹⁶⁹ In October, UK manufacturing output fell for the first time in more than two years.¹⁷⁰ In another sign of economic slowdown, the UK job market declined noticeably in November.



Risks of a credit crunch increased as companies issued fewer bonds in wholesale markets,¹⁷¹ while UK banks struggled to raise money to lend to businesses.¹⁷² Bank lending to UK households shrank by GBP 700mn in November, following an increase of GBP 100mn in October.¹⁷³

In response, the UK government took various actions to support the economy in Q4, and the near future. The UK Prime Minister, David Cameron, vetoed EU treaty changes proposed at the EU Summit in December, in order to preserve national sovereignty and protect key UK industries.¹⁷⁴ The Bank of England began its second round of quantitative easing in October, boosting its asset repurchase program by GBP 75bn, and held interest rates steady at 0.5% in Q4.¹⁷⁵ The asset purchase program implemented by the Bank of England to increase liquidity in the economy is widely expected to be further increased in Q1 2012.¹⁷⁶ In addition, the UK government plans to guarantee bank loans to small and medium sized companies which are facing difficulties in obtaining loans.¹⁷⁷ Both measures are aimed at countering a looming economic slowdown.

The credit outlook facing UK firms is generally downbeat. The 1-year aggregate PD for UK firms showed small variations but was relatively high compared to Q3.

F.1 Banking sector

UK banks were increasingly exposed to the effects of the European sovereign debt crisis in Q4, as they faced difficulty in raising funds. Only 33% of funding raised by UK banks in 2011 was unsecured, according to The Bank of England. This has led to higher asset encumbrance at UK banks, and higher unsecured funding costs.¹⁷⁸ Around 90% of funds raised in 2011 were raised in Q1 and Q2. Accordingly, the average 5-year credit default swap premium for the major UK banks increased markedly in Q4, above the level recorded after the collapse of Lehman Brothers in September 2008.¹⁷⁹ S&P downgraded HSBC, Lloyds and RBS in November when the firm changed its methodology to reflect lower government support for financial institutions and increased funding risks.¹⁸⁰

A government proposal to 'ring fence', or segregate, the retail banking businesses of UK banks from their investment banking activities, could cost the UK banking industry between GBP 3.5bn and GBP 8bn.¹⁸¹ A report released by OpenEurope in December identified 49 EU proposals that could potentially affect the UK Banking sector, including the so-called Tobin tax, an EU wide tax on financial transactions. The UK represents 36% of the EU wholesale financial industry, and has a 61% share of financial transactions in the EU.¹⁸² The qualified majority voting system used in

the EU Parliament and the Council of Ministers could make it difficult to prevent the proposal from coming into force. The biggest proponents of the Tobin tax are France and Germany.¹⁸³

The 1-year aggregate PD for UK banks decreased slightly but remained elevated compared to Q3.

F.2 Consumer-cyclical sector

Companies in the UK consumer-cyclical sector are also facing a gloomy credit outlook, as weakened consumer spending power weighs on earnings.¹⁸⁴ Heavy discounting in December increased sales, but austerity measures and increasing unemployment dampen the outlook for UK consumer-cyclical firms.¹⁸⁵

An index measuring changes in permanent hiring declined to 48.2 in November from 49.7 in October. The Office for Budget Responsibility estimates that the unemployment rate will reach a peak of 8.7% in 2012.¹⁸⁶ In line with the bleak job market conditions, UK household finances weakened as household income fell at the fastest rate since March 2009. UK households are expecting a further deterioration in income and job security in 2012, dampening the credit outlook for the consumer cyclical sector.¹⁸⁷

The 1-year aggregate PD for UK firms in consumer-cyclical sector increased sharply during Q4.

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North America

A US

Various economic indicators presented US firms with a mixed picture in Q4. Signs of a US economic recovery, as well as a continuation of supportive monetary policy,¹⁸⁸ pointed to improved business conditions in Q4, with concerns about a double-dip recession fading. The OECD puts the US economy on track for a modest recovery, with expected growth rates of 2% in 2012 and 2.5% in 2013.¹⁸⁹ An improvement in the employment market,¹⁹⁰ and a rebound in the manufacturing sector,¹⁹¹ improved expectations for US economic growth. US exports were largely

unaffected by the European economic crisis, as the US current-account deficit in December was the smallest recorded since early 2009.¹⁹² In addition, financial conditions for US firms are also likely to remain positive, as the Federal Reserve is committed to maintaining low interest rates, and the ongoing USD 400bn Operation Twist program.^{193,194}

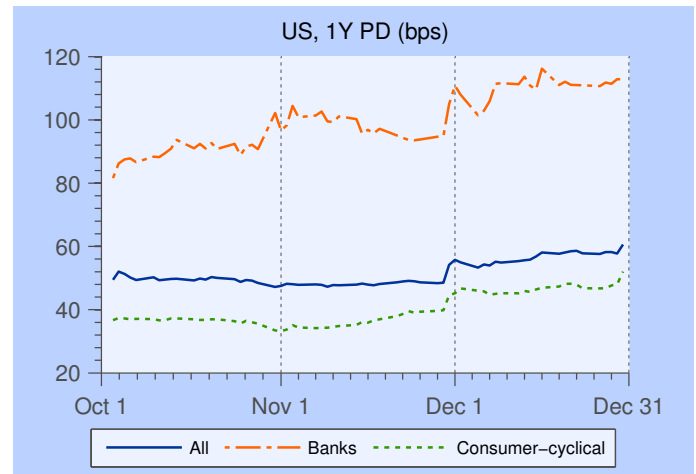
Housing demand improved in Q4, as home sales reached a 7 month high, and home loan applications rose 4.5%.¹⁹⁵ Thirty year mortgage rates reached a record low in December. However, a significant foreclosure inventory in the housing market could prevent a further improvement in the US housing market in 2012.¹⁹⁶

Despite signs of economic improvement, the US economy continues to face a number of challenges, negatively affecting the credit outlook for US firms. US unemployment remained high at 8.5%, despite an improvement in Q4 to the lowest level since early 2009.¹⁹⁷ The participation rate fell to a low of 64% in December.¹⁹⁸

Ongoing political wrangling was another major problem in Q4. The congressional supercommittee failed to reach a budget deficit-reduction agreement in November.¹⁹⁹ A lack of progress across a range of issues, from budget-reduction plans and payroll tax extensions, to a USD 200bn stimulus package, could potentially hamper the US economic recovery. Spending cuts and tax increases that are scheduled to occur from December 31, 2012,²⁰⁰ could have detrimental effects on US firms. The OECD cautioned that breaking the political impasse is an important precondition for an economic recovery. Without a political compromise, the OECD expects the US economy to fall back into recession.²⁰¹ Citing this issue, Fitch placed the US on negative credit watch in November.

Uncertainty over future credit conditions also affected US firms in Q4. A deterioration of the European Sovereign Debt crisis caused an increase in yields on US corporate debt. Although US corporate bond issuance rebounded in December²⁰² after a lull in issuance during October,²⁰³ the risk premiums for US corporate bonds continued to increase throughout 2011, albeit at a lesser extent than their European counterparts.²⁰⁴

Considerable risks and uncertainty remain in the credit outlook of US firms. Underlying issues across the economic, political and financial spectrum continue to weigh on the US economy, providing counterbalance to the encouraging trends that emerged in Q4. The RMI CRI's 1-year PD for US firms ended Q4 slightly higher than the beginning of the quarter, after a small rise in its



value at the end of November coinciding with a fall in the US stock market

A.1 Banking sector

Pressures from various sources have been mounting on the earnings and profitability of US banks in Q4. The Fed's Operation Twist program has lowered long term lending rates, which narrowed the net interest margins of US banks, an important measure of bank lending profitability.²⁰⁵ US banks face steep discounts and resultant losses on their inventory of foreclosed homes.²⁰⁶ In addition, large US banks face significant lawsuit settlement costs from alleged improper foreclosure practices.²⁰⁷

New regulations, and lower government support, could place further pressure on the US banking sector. Research by Credit Suisse suggests Regulation E, a rule that requires prior customer consent before banks can charge overdraft fees, has already had a significant effect on bank profits.²⁰⁸ In addition, the Volker rule could reduce US banks' trading revenues and potentially impair their risk management capability, as some hedging techniques could be considered proprietary trading under the rules.²⁰⁹ In November, S&P downgraded the ratings of the largest US banks when it removed an underlying assumption of government support from its methodology. The rating agency had previously increased the ratings on US banks it believed the US government would prevent from failing.²¹⁰

US banks remain at risk of contagion from the European debt crisis. While the US Treasury Secretary Timothy Geithner denied significant European exposures at US banks, research published by the US government in October estimated that the exposure of US banks to the European debt crisis could be around USD 640bn. This represents 5% of the total assets of US banks, with the research paper suggesting that European exposures could be significantly higher.²¹¹ The October bankruptcy of MF Global, a major financial derivatives broker with an investment banking division, illustrated the risk to US banks of overexposure to European sovereigns.

On the other hand, positive developments in Q4 provided opportunities to improve the funding and earning ability of US banks. US businesses showed strong demand for loans in Q4, as commercial and industrial loans grew 15.1% in October and 5.9% in November.^{212,213} Moreover, US banks could benefit from the European debt crisis in a few ways. The crisis has created opportunities for US banks to boost their lending businesses, by reaping the market share ceded by European banks.²¹⁴ It has also caused a flight to safety from US subsidiaries of European banks to US banks, increasing the deposit base of US banks and easing funding pressures.²¹⁵

Against these backdrops, US banks continued to hold a negative credit outlook during Q4. Correspondingly, the RMI CRI's 1-year PD for US banks showed a clear upward movement, with a jump at the end of November.

A.2 Consumer-cyclical sector

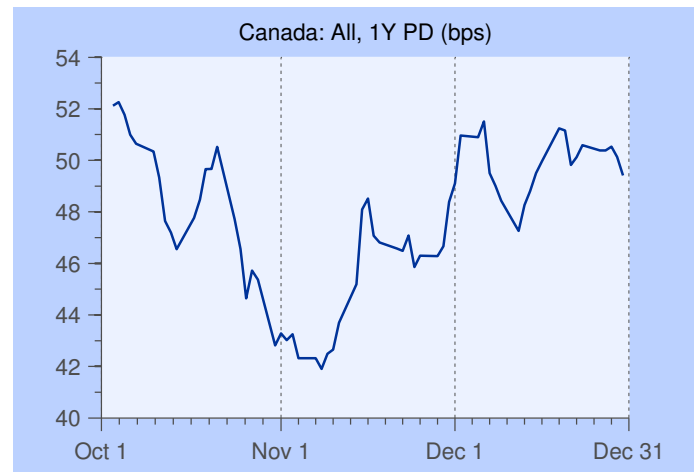
Some of the statistics published during Q4 provided grounds for optimistic forecasts for the US consumer-cyclical sector. According to ISM non-manufacturing survey results, the PMI reading for the US service sector registered its 25th consecutive monthly rise in December, to 52.6.²¹⁶ Notably, sales in the US automobile industry recovered in 2011,²¹⁷ and confidence in the sector's viability led large US automobile manufacturers such as Ford to announce expansion plans in Q4.²¹⁸ Credit available to consumers increased during Q4, as the volume of US consumer borrowing in November increased by the largest amount since 2001, with consumer interest rates at the most favourable levels ever recorded.^{219,220} Inflation remained low in Q4, as the US CPI retreated 0.1% in October and did not change in November.²²¹

But large challenges remain for the US consumer-cyclical sector. Uncertainties about unemployment,²²² and prolonged sluggishness in the housing market,²²³ have crippled consumer demand for goods and services. Soaring student debt is likely to be another major problem for

the consumer-cyclical sector, as high debt loads may further deter US consumer demand.²²⁴ Overshadowed by these issues, firms in the US consumer-cyclical sector are facing a negative credit outlook, with their 1-year PD showing an increase during Q4.

B Canada

Canadian firms faced a mixed picture in Q4. Funding conditions remained favorable, as the Bank of Canada held the key interest rate at 1%.²²⁵ Despite competition between lenders, lending conditions tightened slightly in Q4, following several consecutive quarters of easing loan conditions for Canadian firms.²²⁶ The Canadian economy benefited from a recovery in commodity prices in Q4, with the S&P Goldman Sachs commodity index increasing to 644 points in December, from a low of 576 points in October.



Concerns about the global economic slowdown have weighed upon the business expectations of Canadian firms.²²⁷ In a report during Q4, the IMF said that the prospects for the Canadian economy are favourable overall, but warned that challenges remain. Household debt is at a record high, when compared to disposable income. A potential global economic slowdown could place downward pressure on commodity prices. A feeble recovery in the US, Canada's largest export market, and continued strong Canadian dollar could also weaken exports.^{228,229}

Considering these factors, the credit outlook for Canadian firms remains uncertain. The 1-year PD for Canadian firms declined slightly from a yearly high in September, but showed considerable volatility in Q4. A divergence between Canadian and US firms is evident, as the aggregate PD for Canadian firms retreated over Q4, while the PD for US firms increased.

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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 January 10, 2012, using data up to December 31, 2011. 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 Q3 and Q4 in 2011. 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.

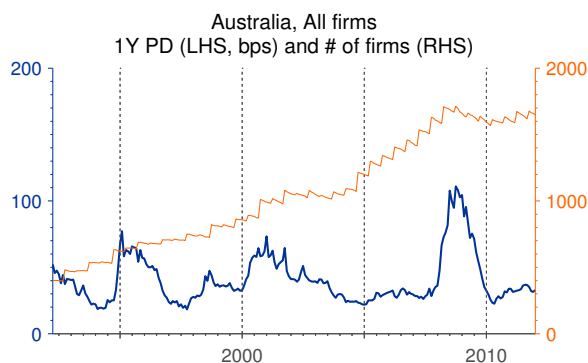
Appendix B gives 1-year aggregate PD by the four regions of Asia-Pacific developed, Asia-Pacific emerging, Western Europe and North America. The top two graphs of each regions show the time series of the distribution of Probability of Default implied Ratings (PDiR). The PDiR are described in the last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

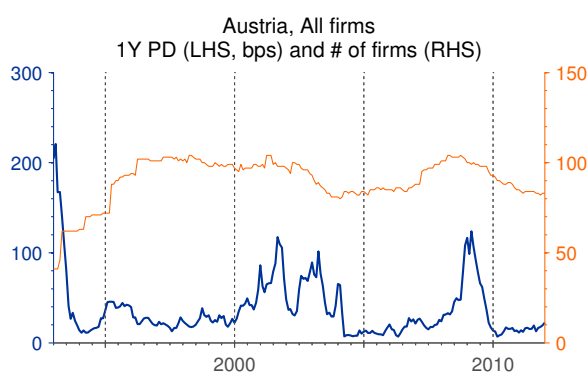
Appendix C provides common macroeconomic, corporate credit and sovereign risk indicators for each economy along with the 1-year aggregate PD for financial and non-financial firms. The graphs on the left give historical context to the values, and the table on the right give the data from the previous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

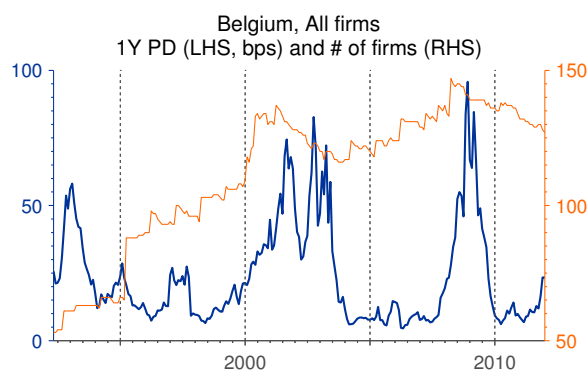
A PD by economies



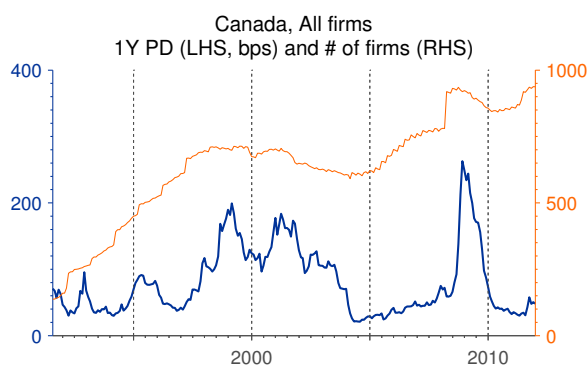
Australia		2011Q3		2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	160	51.3	114.0	53.3	134.8	2.0	36.6
Basic Materials	704	21.6	49.7	23.2	50.6	1.5	29.5
Communications	86	48.7	112.7	42.1	98.2	-6.6	37.3
Consumer Cyclical	88	50.4	97.0	47.5	87.2	-2.9	36.6
Consumer Non-cyclical	201	31.6	61.5	37.2	106.0	5.6	87.2
Diversified	8	11.8	20.1	10.9	15.6	-0.9	5.4
Energy	207	27.3	68.1	26.2	55.9	-1.1	25.2
Industrial	128	39.8	64.6	32.6	49.1	-7.2	30.1
Technology	51	66.9	126.0	62.7	130.6	-4.2	26.5
Utilities	14	185.4	656.1	85.9	285.9	-99.6	370.3



Austria		2011Q3		2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	23	15.7	12.4	19.9	16.0	4.1	11.2
Basic Materials	4	6.4	5.1	12.5	9.9	6.1	6.4
Communications	4	10.1	8.1	37.1	55.6	27.0	55.0
Consumer Cyclical	12	16.2	14.9	23.5	32.0	7.3	22.1
Consumer Non-cyclical	8	24.5	34.3	24.7	30.6	0.3	5.5
Energy	4	7.3	2.5	7.7	3.1	0.4	1.4
Industrial	18	19.8	29.5	26.6	32.8	6.7	5.7
Technology	6	24.6	25.6	33.1	37.4	8.5	13.7
Utilities	3	5.1	0.9	9.5	3.1	4.4	2.2



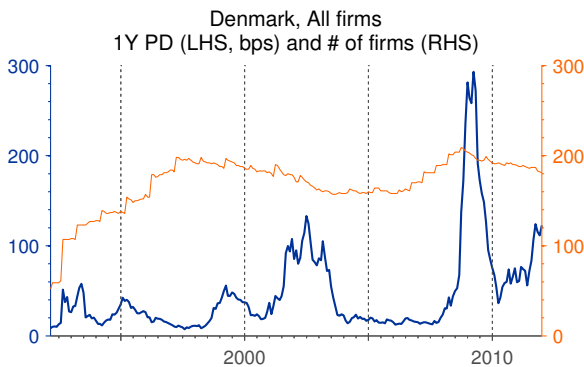
Belgium		2011Q3		2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	32	9.1	15.8	28.0	92.0	18.9	80.5
Basic Materials	8	8.8	6.5	15.0	10.3	6.2	5.1
Communications	10	11.7	10.8	16.6	14.3	4.9	6.7
Consumer Cyclical	7	15.7	23.2	44.0	84.2	28.4	61.2
Consumer Non-cyclical	27	8.4	17.4	9.0	13.1	0.6	6.9
Diversified	8	13.4	32.3	27.5	68.9	14.1	36.7
Energy	2	95.8	1.1	183.0	19.3	87.1	20.4
Industrial	23	12.9	14.3	21.9	26.0	9.0	15.6
Technology	8	13.7	11.4	18.9	15.8	5.2	8.6
Utilities	2	1.2	0.6	1.5	1.0	0.3	0.4



Canada		2011Q3		2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	114	32.5	90.7	35.0	79.0	2.5	67.5
Basic Materials	284	29.7	69.8	33.8	56.4	4.1	56.5
Communications	56	171.5	1085.6	112.5	562.3	-59.1	531.2
Consumer Cyclical	65	33.7	97.0	35.5	65.3	1.8	80.0
Consumer Non-cyclical	108	50.9	160.6	68.1	233.5	17.2	119.8
Diversified	6	30.1	42.8	31.6	46.1	1.5	4.3
Energy	166	39.1	81.1	47.0	108.6	7.9	107.1
Industrial	74	88.2	360.1	75.2	173.9	-13.0	280.8
Technology	31	52.1	100.8	51.4	72.0	-0.8	81.1
Utilities	12	12.1	17.5	6.6	7.7	-5.5	13.8



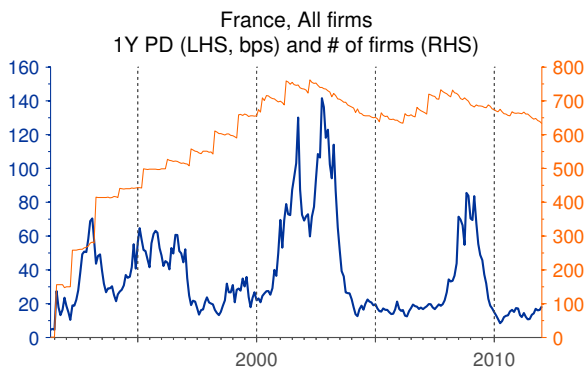
China	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	194	144.4	150.9	174.5	218.8	30.1	140.1
Basic Materials	344	164.0	177.6	209.0	288.6	45.0	141.6
Communications	150	110.7	170.4	143.4	305.1	32.7	194.5
Consumer Cyclical	484	138.2	143.8	160.2	173.3	22.0	74.0
Consumer Non-cyclical	455	121.8	154.3	137.9	192.7	16.1	77.3
Diversified	50	210.6	121.1	246.2	154.5	35.6	63.8
Energy	82	152.5	317.1	223.0	590.2	70.5	445.3
Industrial	768	142.8	205.5	168.8	244.2	26.0	128.5
Technology	152	113.6	218.1	128.4	230.2	14.9	207.7
Utilities	77	217.0	149.1	258.6	250.4	41.6	169.5



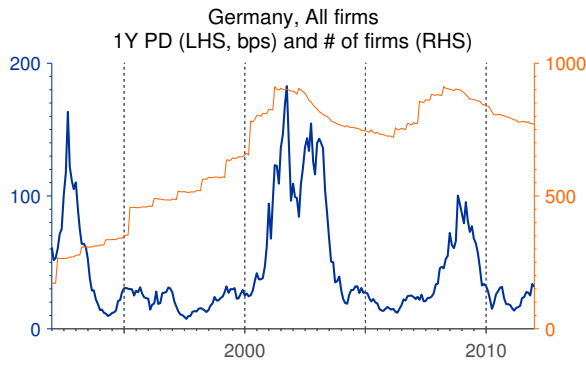
Denmark	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	68	126.4	170.5	137.1	189.1	10.6	69.0
Basic Materials	2	24.6	11.4	27.9	0.2	3.3	11.2
Communications	11	45.2	54.3	67.3	109.1	22.1	59.5
Consumer Cyclical	19	118.5	229.2	99.0	101.3	-19.5	169.1
Consumer Non-cyclical	25	26.5	32.1	27.2	33.1	0.7	14.6
Diversified	2	36.7	15.4	75.3	51.8	38.6	36.3
Energy	2	129.4	169.2	94.2	113.1	-35.2	56.1
Industrial	38	192.0	357.6	195.5	339.3	3.6	183.7
Technology	14	149.1	225.3	124.3	137.8	-24.8	125.3



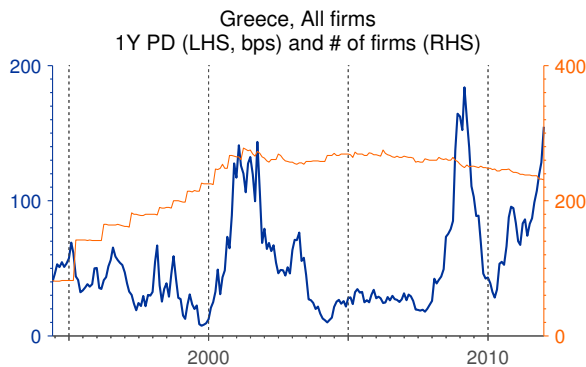
Finland	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	15	23.5	26.4	31.7	45.0	8.2	30.2
Basic Materials	10	17.4	14.0	19.7	13.8	2.3	6.1
Communications	16	13.3	14.2	16.7	14.9	3.4	8.6
Consumer Cyclical	9	16.8	29.3	18.4	25.3	1.6	6.0
Consumer Non-cyclical	17	18.2	15.7	16.0	13.0	-2.2	11.3
Diversified	1	5.5	-	6.5	-	1.0	-
Energy	1	22.4	-	17.4	-	-5.1	-
Industrial	37	12.9	10.4	15.6	14.8	2.7	6.8
Technology	16	19.3	23.7	19.9	22.2	0.6	5.8
Utilities	1	1.7	-	2.9	-	1.2	-



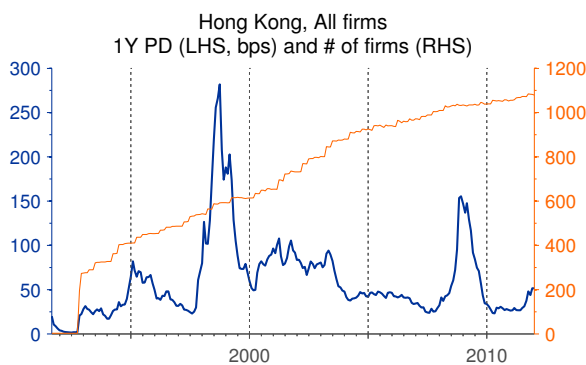
France	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	106	20.3	45.7	17.9	38.7	-2.4	26.3
Basic Materials	19	13.8	11.5	18.4	21.7	4.6	13.8
Communications	75	21.1	49.8	22.4	45.9	1.3	10.5
Consumer Cyclical	85	17.0	19.6	18.4	20.5	1.3	10.8
Consumer Non-cyclical	124	10.7	17.1	11.3	19.8	0.6	7.2
Diversified	10	19.6	19.5	17.7	19.4	-2.0	8.8
Energy	16	34.5	54.2	32.1	42.7	-2.4	39.3
Industrial	105	15.1	20.9	15.2	18.7	0.0	9.2
Technology	82	15.7	21.2	27.5	87.8	11.8	85.4
Utilities	10	19.3	37.3	21.0	35.5	1.7	5.8



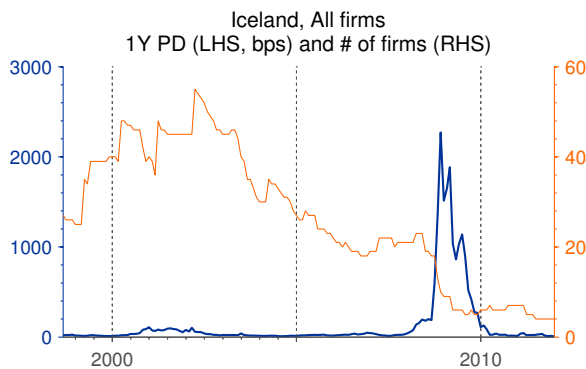
Germany	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	191	22.6	41.8	26.6	41.7	4.1	38.7
Basic Materials	25	7.7	7.7	10.2	10.5	2.5	3.6
Communications	74	29.0	99.9	40.2	110.8	11.2	84.1
Consumer Cyclical	99	16.3	25.6	28.4	56.4	12.1	42.7
Consumer Non-cyclical	105	16.9	41.2	29.6	93.2	12.6	54.1
Diversified	5	24.0	26.7	76.8	135.0	52.8	108.6
Energy	23	25.9	25.1	66.6	124.1	40.8	106.1
Industrial	151	29.7	132.7	41.2	128.3	11.5	70.7
Technology	83	18.2	32.4	20.6	29.0	2.4	15.7
Utilities	10	11.6	24.0	11.9	22.9	0.3	1.5



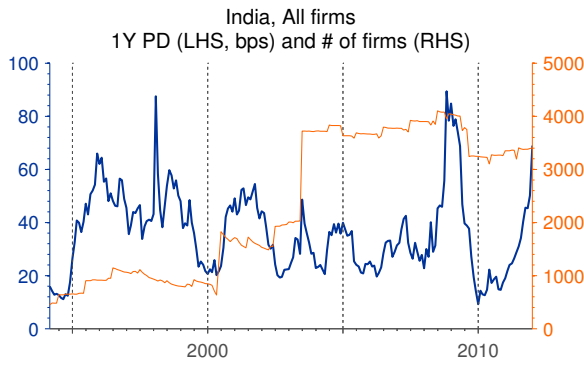
Greece	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	26	151.4	205.0	204.2	264.4	52.8	311.1
Basic Materials	10	40.3	30.4	55.6	43.5	15.4	25.2
Communications	17	107.5	86.7	276.7	412.3	169.2	407.1
Consumer Cyclical	44	68.8	80.3	84.8	120.1	16.0	57.6
Consumer Non-cyclical	38	111.8	201.8	137.4	294.3	25.6	248.7
Diversified	2	80.3	94.4	91.6	107.8	11.3	13.4
Energy	5	21.9	13.3	39.8	26.9	18.0	23.5
Industrial	72	144.9	296.8	182.3	327.1	37.4	254.5
Technology	13	76.1	57.0	93.3	72.3	17.2	53.3
Utilities	3	23.6	13.4	36.8	31.3	13.2	24.6



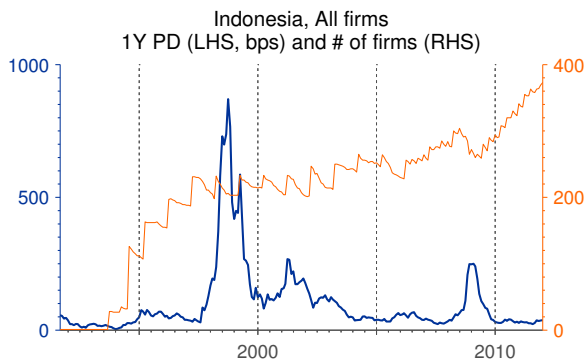
Hong Kong	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	207	35.9	54.9	39.0	56.1	3.1	29.0
Basic Materials	61	64.3	79.9	86.7	125.7	22.5	74.7
Communications	85	43.3	69.7	47.5	91.0	4.2	70.4
Consumer Cyclical	240	46.6	78.9	47.5	68.8	0.9	45.2
Consumer Non-cyclical	128	46.8	112.1	45.2	83.3	-1.5	46.1
Diversified	72	43.4	79.1	49.5	73.8	6.1	36.3
Energy	39	78.4	117.1	105.2	151.2	26.9	89.8
Industrial	178	48.1	55.8	55.0	71.5	6.9	44.5
Technology	55	57.6	77.9	60.7	80.6	3.1	58.8
Utilities	11	29.0	55.3	20.8	37.0	-8.2	19.4



Iceland	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Consumer Cyclical	1	27.8	-	23.3	-	-4.5	-
Consumer Non-cyclical	2	11.9	5.8	2.1	1.8	-9.8	7.6
Industrial	1	7.8	-	2.7	-	-5.1	-



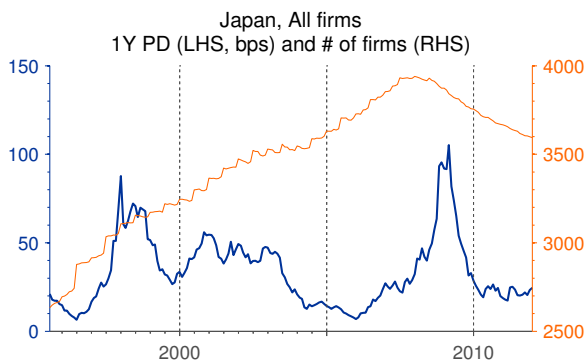
India	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	530	47.1	53.7	67.9	92.7	20.8	54.1
Basic Materials	475	45.8	42.6	71.0	58.2	25.1	25.1
Communications	119	36.5	36.1	56.7	53.8	20.1	31.0
Consumer Cyclical	662	47.0	44.1	72.7	63.8	25.7	27.6
Consumer Non-cyclical	537	45.9	47.4	70.9	74.3	25.1	40.9
Diversified	30	47.5	51.8	65.7	53.0	18.2	19.0
Energy	55	32.0	28.1	56.7	46.7	24.7	25.8
Industrial	713	44.7	37.1	68.5	54.1	23.8	26.7
Technology	202	44.1	93.8	65.5	78.2	21.5	45.5
Utilities	35	33.3	55.2	56.3	79.9	23.1	27.5



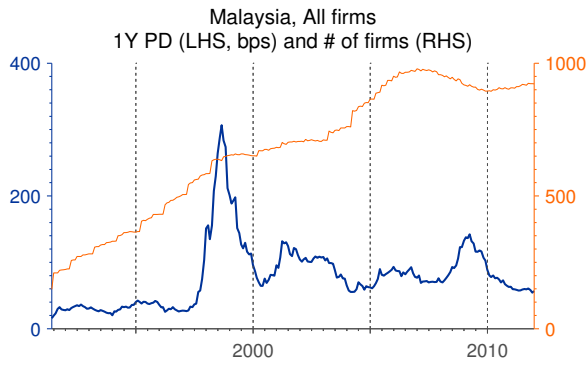
Indonesia	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	95	56.7	70.1	56.6	65.9	-0.2	20.2
Basic Materials	44	39.5	49.1	42.3	45.8	2.8	29.5
Communications	19	29.0	27.3	32.2	30.2	3.2	8.0
Consumer Cyclical	61	23.0	24.5	22.4	19.9	-0.5	12.7
Consumer Non-cyclical	58	19.4	20.5	22.1	22.6	2.7	8.9
Diversified	1	26.6	-	22.6	-	-4.0	-
Energy	23	45.5	38.2	51.7	51.9	6.2	27.7
Industrial	49	37.0	50.6	36.2	44.9	-0.8	15.0
Technology	6	9.6	8.5	8.9	8.5	-0.7	0.6
Utilities	2	58.9	47.4	75.8	78.0	16.9	30.7



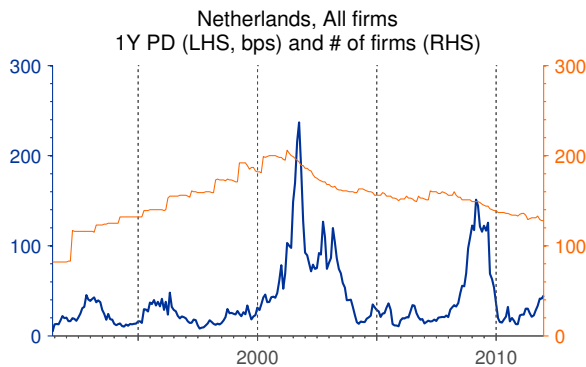
Italy	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	60	33.1	38.0	51.7	78.2	18.6	50.0
Basic Materials	8	76.9	144.0	57.6	83.4	-19.3	74.3
Communications	32	17.5	17.5	23.0	24.5	5.5	13.8
Consumer Cyclical	45	20.2	16.5	26.3	35.3	6.1	27.9
Consumer Non-cyclical	33	15.7	18.2	26.8	44.2	11.0	33.4
Diversified	3	14.6	4.8	11.8	4.1	-2.7	2.4
Energy	15	27.0	25.8	26.0	25.5	-1.1	9.1
Industrial	55	20.0	30.1	26.5	59.4	6.5	36.7
Technology	13	28.2	28.6	28.9	30.9	0.6	8.6
Utilities	14	10.3	9.7	11.7	10.0	1.4	3.7



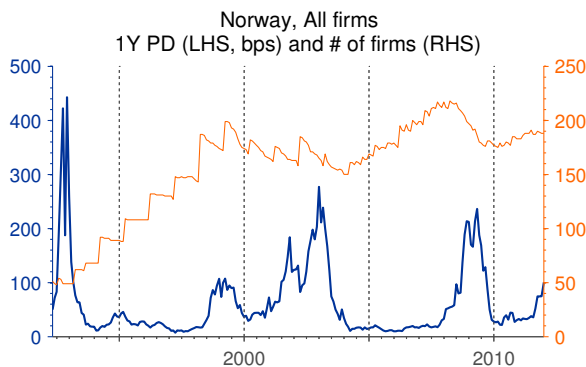
Japan	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	326	43.9	57.1	48.5	53.4	4.5	28.6
Basic Materials	245	19.7	24.4	24.0	26.4	4.3	8.8
Communications	250	18.2	29.6	19.9	29.9	1.7	9.9
Consumer Cyclical	896	19.9	29.2	21.1	29.1	1.2	14.1
Consumer Non-cyclical	574	14.2	27.6	14.8	27.1	0.6	9.5
Diversified	2	45.3	33.3	58.0	49.7	12.8	16.4
Energy	16	37.5	54.9	36.8	44.1	-0.7	13.8
Industrial	998	21.5	24.2	25.9	30.5	4.4	12.9
Technology	253	19.1	35.4	24.5	75.4	5.4	62.7
Utilities	24	31.3	82.7	54.0	160.6	22.7	78.2



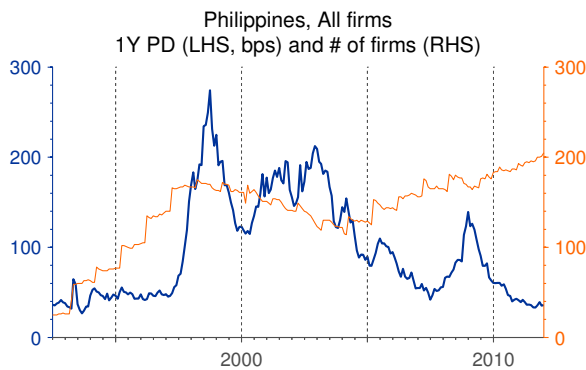
Malaysia	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	130	47.6	64.4	42.7	47.1	-4.9	27.7
Basic Materials	69	65.9	67.8	61.4	56.7	-4.4	31.6
Communications	37	34.3	45.5	35.9	48.5	1.6	24.2
Consumer Cyclical	122	64.9	137.9	66.0	153.7	1.1	24.9
Consumer Non-cyclical	150	37.9	54.0	36.2	51.4	-1.7	22.5
Diversified	25	34.0	26.4	38.6	30.8	4.6	9.9
Energy	22	68.8	119.3	86.6	199.3	17.7	94.7
Industrial	289	75.2	128.3	70.0	115.1	-5.2	55.1
Technology	65	76.0	161.4	66.3	112.1	-9.7	59.7
Utilities	6	7.6	5.9	10.2	8.6	2.6	4.5



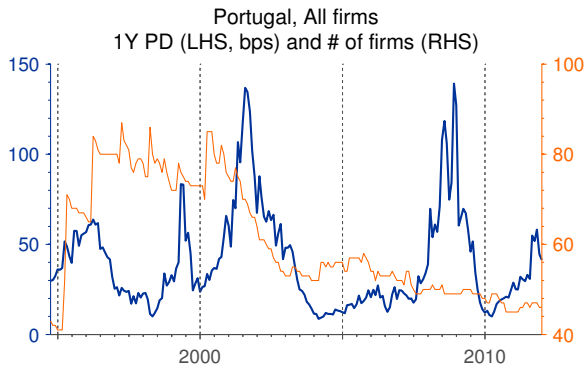
Netherlands	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	18	35.2	37.8	33.0	40.0	-2.2	10.9
Basic Materials	5	24.8	30.0	14.1	15.9	-10.6	16.3
Communications	11	75.5	217.1	68.3	186.8	-7.2	31.1
Consumer Cyclical	10	74.4	203.4	252.6	765.6	178.2	562.4
Consumer Non-cyclical	26	20.2	29.4	21.5	27.3	1.3	20.4
Diversified	4	36.1	69.3	27.7	51.8	-8.4	17.5
Energy	5	5.5	5.5	4.8	5.5	-0.7	0.7
Industrial	33	17.9	19.2	23.0	32.6	5.2	21.0
Technology	16	27.8	33.0	21.3	25.6	-6.5	19.8



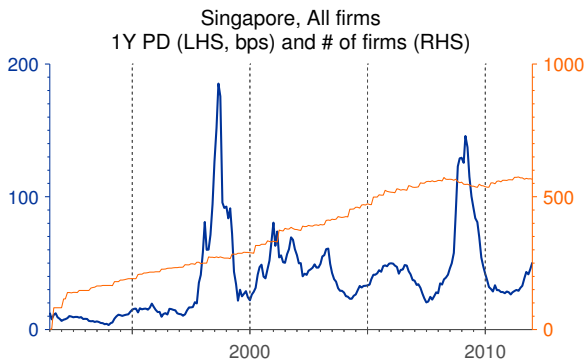
Norway	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	36	51.2	31.7	61.7	51.5	10.5	33.2
Basic Materials	6	111.3	145.8	67.5	95.2	-43.9	117.8
Communications	9	18.6	13.2	23.0	19.0	4.4	8.8
Consumer Cyclical	5	36.8	24.9	61.5	53.5	24.8	42.6
Consumer Non-cyclical	35	97.6	299.1	96.8	211.6	-0.8	333.6
Diversified	1	5.0	-	7.8	-	2.8	-
Energy	28	72.3	128.3	191.2	594.6	118.9	477.0
Industrial	51	72.6	152.6	111.5	345.3	38.9	207.8
Technology	14	49.4	43.7	89.8	156.3	40.4	129.1
Utilities	2	4.5	1.5	5.2	1.8	0.7	0.3



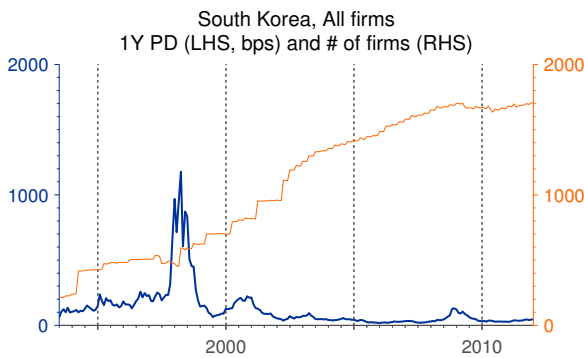
Philippines	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	70	44.3	61.2	49.9	80.0	5.6	33.9
Basic Materials	20	20.3	25.4	19.8	24.6	-0.5	3.7
Communications	13	34.3	32.9	33.4	37.3	-0.9	18.7
Consumer Cyclical	15	44.1	71.7	36.7	57.1	-7.4	17.0
Consumer Non-cyclical	28	49.5	73.0	42.1	70.0	-7.4	31.1
Diversified	18	22.7	32.6	28.1	27.1	5.4	28.7
Energy	13	8.6	10.1	10.6	15.1	2.0	5.9
Industrial	13	35.1	39.7	38.7	42.5	3.6	6.4
Technology	1	2.3	-	2.6	-	0.3	-
Utilities	9	14.7	9.9	10.6	5.3	-4.1	5.1



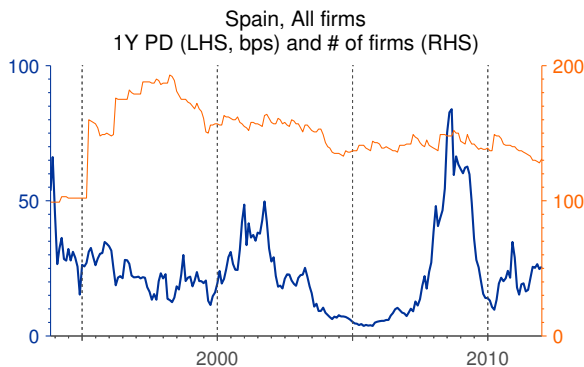
Portugal	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	5	54.0	19.6	68.6	30.1	14.5	12.9
Basic Materials	7	34.3	44.9	24.1	31.7	-10.2	13.3
Communications	7	55.0	46.1	37.0	34.3	-18.0	21.9
Consumer Cyclical	8	72.2	70.1	57.6	49.2	-14.7	24.8
Consumer Non-cyclical	5	41.8	45.0	43.7	49.1	1.9	5.4
Diversified	2	31.5	16.1	23.0	14.5	-8.5	1.5
Energy	1	2.6	-	4.4	-	1.8	-
Industrial	7	54.0	31.2	39.1	20.9	-14.9	15.3
Technology	2	71.1	84.8	56.9	62.7	-14.2	22.2
Utilities	2	8.4	5.0	6.0	3.2	-2.4	1.9



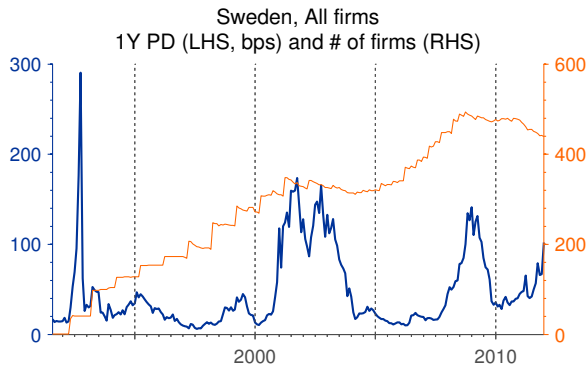
Singapore	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	89	20.7	35.0	21.9	32.1	1.3	16.3
Basic Materials	31	56.9	62.7	69.9	74.3	13.0	31.8
Communications	29	40.5	52.6	48.8	55.0	8.3	37.6
Consumer Cyclical	82	43.5	82.2	46.2	74.0	2.7	30.3
Consumer Non-cyclical	72	33.9	92.1	37.1	80.6	3.1	24.3
Diversified	11	36.4	64.2	39.0	54.7	2.6	19.6
Energy	30	49.3	54.6	57.2	62.2	7.9	15.8
Industrial	190	53.3	97.6	69.0	142.3	15.7	76.1
Technology	28	46.8	75.7	43.0	41.1	-3.8	47.7
Utilities	1	6.0	-	9.3	-	3.4	-



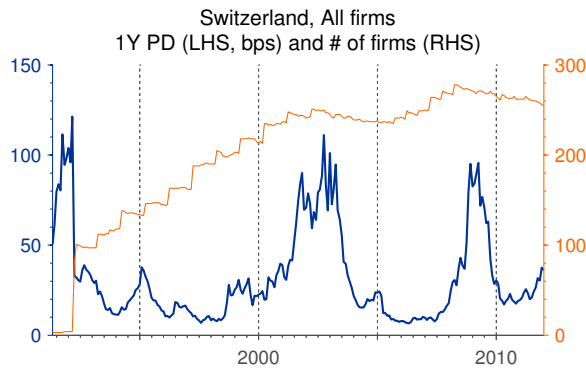
South Korea	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	115	52.1	56.8	58.6	65.3	6.5	33.5
Basic Materials	185	34.5	41.5	42.4	73.4	7.9	46.3
Communications	172	45.9	219.6	59.3	329.4	13.4	116.4
Consumer Cyclical	262	36.9	44.9	38.9	44.1	2.0	24.6
Consumer Non-cyclical	217	24.8	65.6	25.0	65.4	0.3	15.7
Diversified	33	17.2	32.5	24.1	46.1	6.9	16.6
Energy	9	52.8	47.2	72.2	64.6	19.4	38.2
Industrial	502	53.3	80.8	56.9	89.2	3.5	48.4
Technology	175	41.0	55.6	41.7	64.8	0.7	50.9
Utilities	17	29.5	25.2	30.6	25.8	1.2	12.1



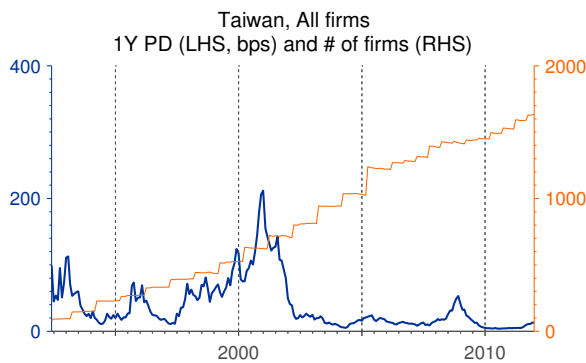
Spain	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	35	54.4	95.1	53.1	77.9	-1.2	49.3
Basic Materials	9	10.1	10.7	12.8	17.8	2.7	7.4
Communications	9	13.2	11.5	15.7	21.3	2.5	12.0
Consumer Cyclical	12	11.1	9.3	15.6	12.2	4.4	4.7
Consumer Non-cyclical	25	17.3	24.7	19.5	36.4	2.2	25.2
Energy	4	9.9	8.7	10.1	10.3	0.2	2.4
Industrial	24	13.5	9.7	17.3	15.5	3.8	9.3
Technology	3	12.9	16.3	12.9	14.8	0.1	1.8
Utilities	7	3.6	1.7	3.6	1.6	-0.1	0.7



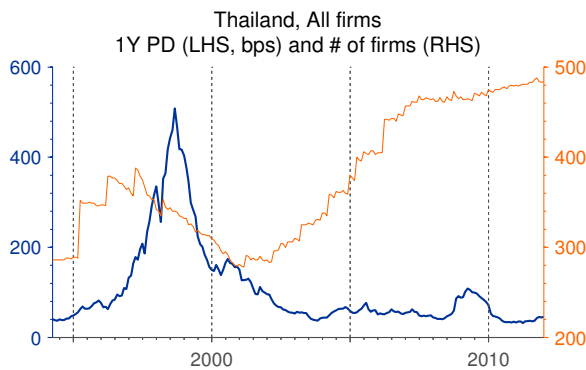
Sweden	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	55	47.9	87.1	84.8	214.0	36.9	198.8
Basic Materials	26	77.8	121.8	157.2	448.0	79.3	347.3
Communications	47	128.7	264.9	171.9	489.2	43.1	463.0
Consumer Cyclical	52	51.6	53.6	83.6	147.6	32.1	127.6
Consumer Non-cyclical	100	60.1	154.7	110.8	360.0	50.7	303.2
Diversified	7	35.8	51.7	35.8	42.0	0.0	21.7
Energy	13	72.7	112.6	72.6	111.4	-0.1	7.2
Industrial	96	71.0	127.8	85.0	162.5	13.9	98.0
Technology	40	67.0	200.6	74.9	222.4	7.9	85.3
Utilities	1	24.3	-	28.8	-	4.5	-



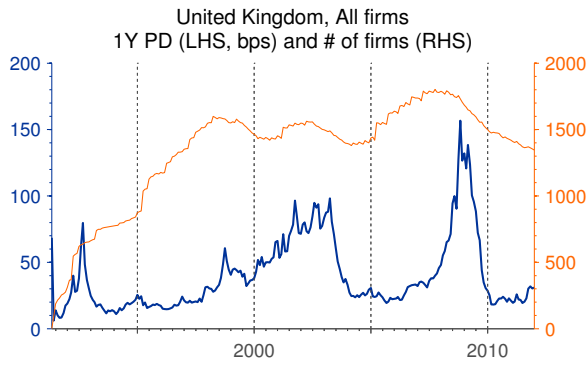
Switzerland	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	64	28.4	42.2	28.4	52.1	0.1	20.3
Basic Materials	18	72.4	206.8	45.1	107.4	-27.4	100.7
Communications	13	44.9	82.2	56.4	110.7	11.6	34.4
Consumer Cyclical	24	43.7	93.2	43.5	78.0	-0.2	24.7
Consumer Non-cyclical	40	20.6	42.8	22.7	42.3	2.1	31.9
Diversified	3	36.7	35.6	45.6	43.0	8.9	8.6
Energy	6	48.4	51.9	156.6	242.5	108.2	194.6
Industrial	66	20.9	36.6	22.0	49.3	1.1	29.5
Technology	10	27.0	21.4	30.1	30.6	3.2	18.7
Utilities	11	45.9	108.8	95.3	210.6	49.4	215.4



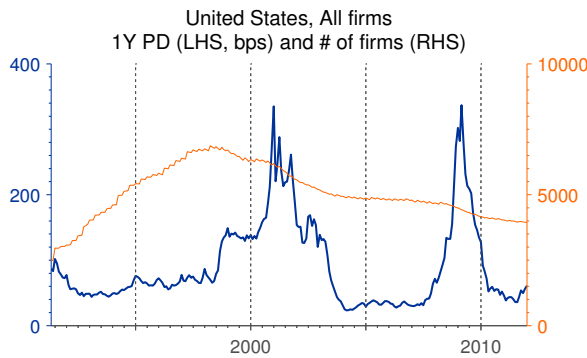
Taiwan	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	98	7.4	5.4	11.6	8.8	4.1	5.3
Basic Materials	107	10.9	49.9	15.0	55.2	4.1	13.9
Communications	86	11.0	43.6	11.5	38.7	0.5	6.5
Consumer Cyclical	195	6.7	16.8	8.5	13.9	1.8	12.5
Consumer Non-cyclical	134	4.9	9.9	6.1	14.5	1.3	7.5
Diversified	2	3.3	2.8	1.9	0.5	-1.4	2.3
Energy	9	23.1	19.0	33.2	24.7	10.1	14.5
Industrial	639	12.2	42.0	14.9	45.4	2.7	15.4
Technology	347	13.2	35.4	15.1	33.8	1.9	14.1
Utilities	7	0.4	0.5	0.4	0.7	0.1	0.3



Thailand	2011Q3			2011Q4		Q4-Q3	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	98	50.2	49.9	59.2	55.0	9.0	21.4
Basic Materials	48	47.5	45.9	52.6	52.8	5.1	16.8
Communications	34	45.5	92.6	40.2	66.9	-5.3	37.7
Consumer Cyclical	107	33.5	42.6	36.1	42.0	2.6	12.6
Consumer Non-cyclical	70	25.5	36.9	27.4	38.8	2.0	9.6
Diversified	2	13.1	0.4	19.1	9.9	6.0	9.5
Energy	13	24.1	20.4	29.4	23.2	5.3	12.4
Industrial	92	56.6	65.4	58.7	71.6	2.0	23.6
Technology	11	69.3	81.4	48.9	32.3	-20.4	60.5
Utilities	7	14.4	18.3	19.8	25.5	5.5	8.7



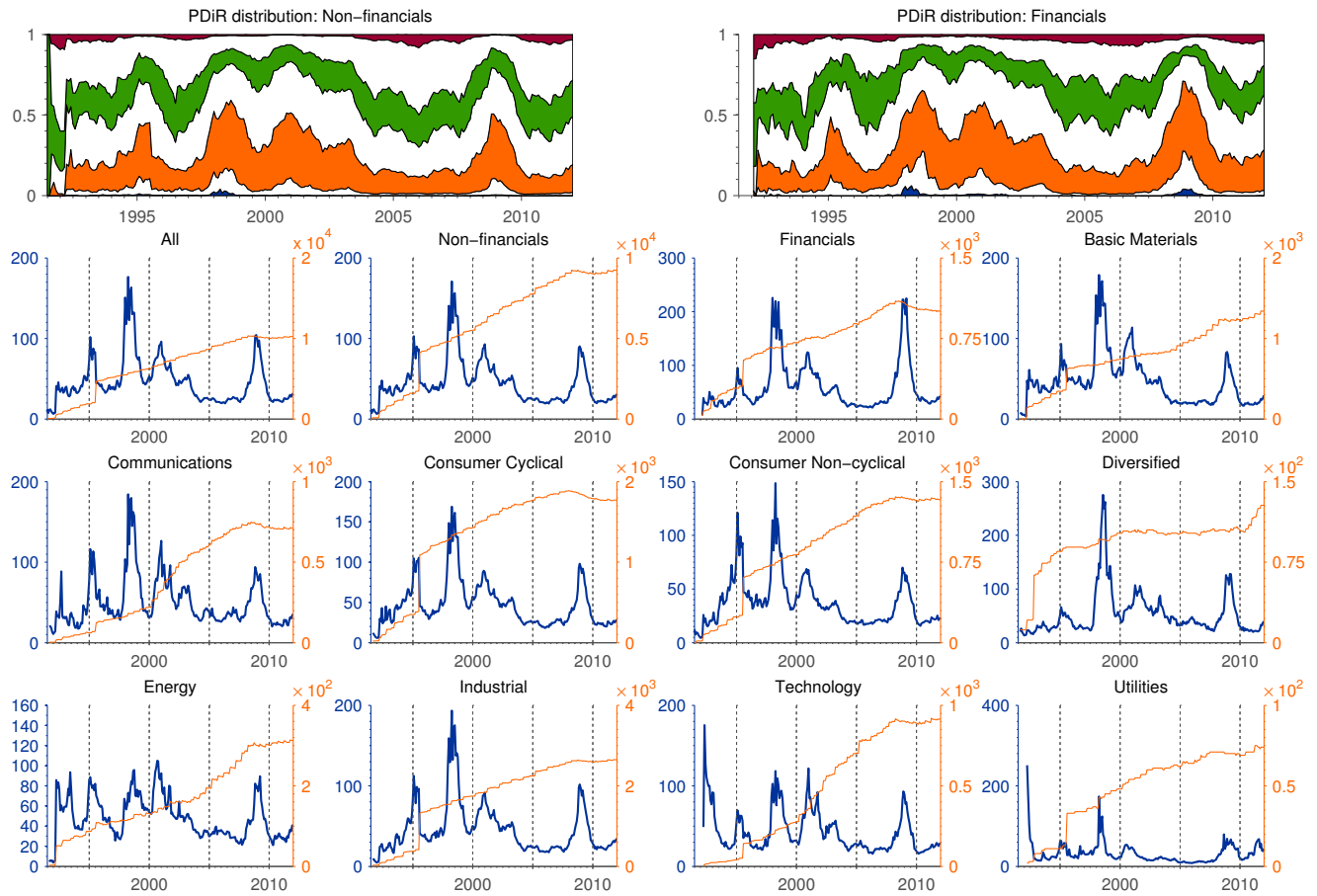
United Kingdom	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	242	20.3	46.2	22.2	49.8	1.9	32.7
Basic Materials	116	39.1	166.3	34.8	100.8	-4.3	75.4
Communications	128	34.7	58.8	35.9	68.4	1.2	35.7
Consumer Cyclical	160	30.0	60.3	52.4	212.1	22.4	187.5
Consumer Non-cyclical	256	20.3	37.1	26.8	78.9	6.5	67.6
Diversified	16	17.9	26.1	17.6	19.1	-0.3	13.0
Energy	109	25.1	41.2	23.6	34.8	-1.5	40.9
Industrial	193	32.0	81.0	36.9	117.5	5.0	116.8
Technology	102	19.6	28.4	20.8	49.4	1.2	38.8
Utilities	12	11.6	19.1	8.9	15.2	-2.8	5.8



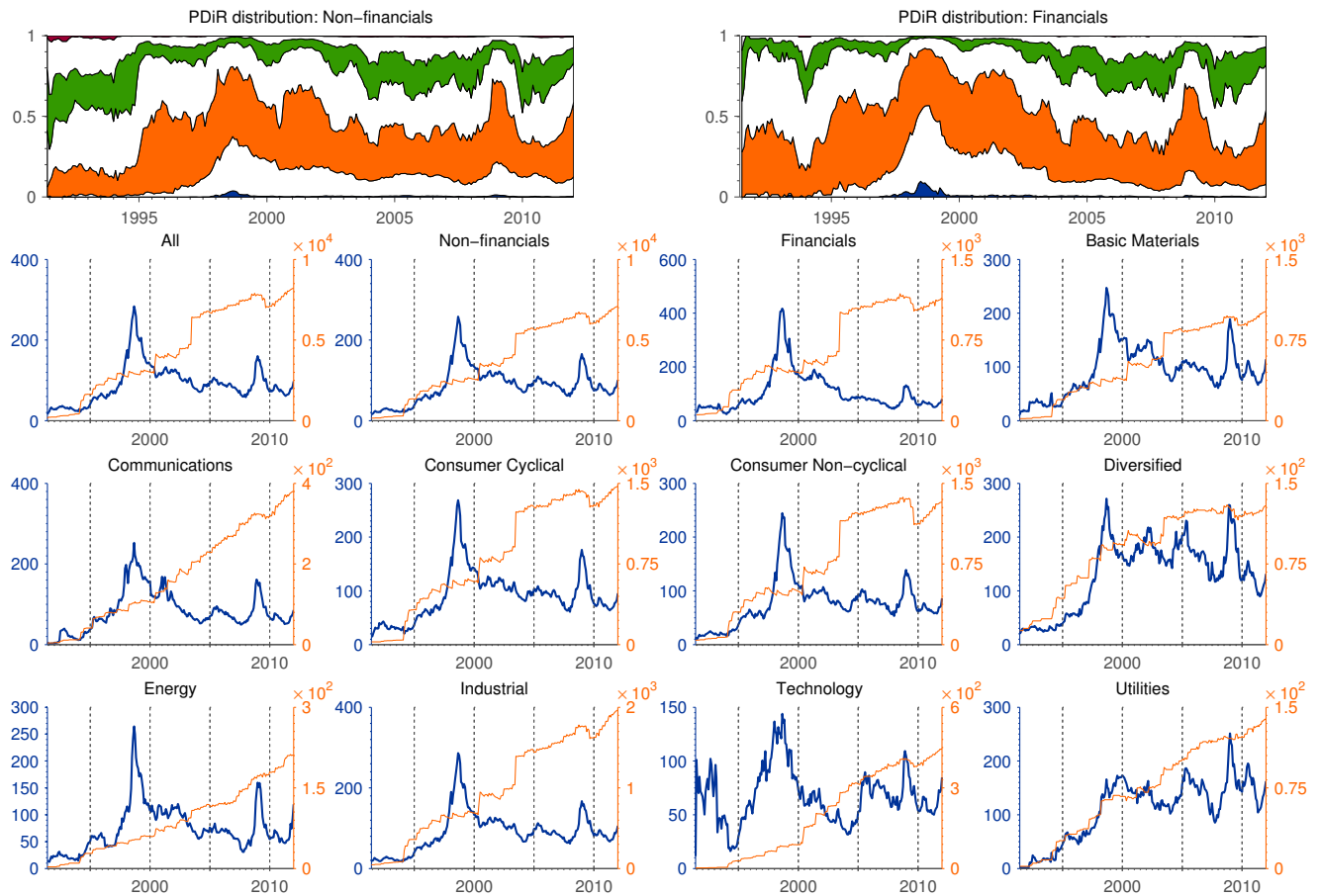
United States	#	2011Q3		2011Q4		Q4-Q3	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	895	67.4	181.5	88.8	375.4	21.4	326.4
Basic Materials	147	22.4	46.3	32.6	90.1	10.2	60.3
Communications	325	81.5	371.8	74.6	208.9	-6.9	313.0
Consumer Cyclical	467	35.4	70.1	52.1	177.9	16.7	155.7
Consumer Non-cyclical	816	35.4	145.2	48.2	178.0	12.8	114.6
Diversified	7	36.2	42.7	99.4	170.9	63.2	131.6
Energy	276	59.4	187.9	73.8	238.6	14.4	235.7
Industrial	523	39.8	132.8	62.3	231.0	22.5	132.4
Technology	351	23.1	56.0	37.9	164.7	14.8	122.6
Utilities	95	6.7	18.0	10.7	38.0	4.0	24.0

B PD by regions

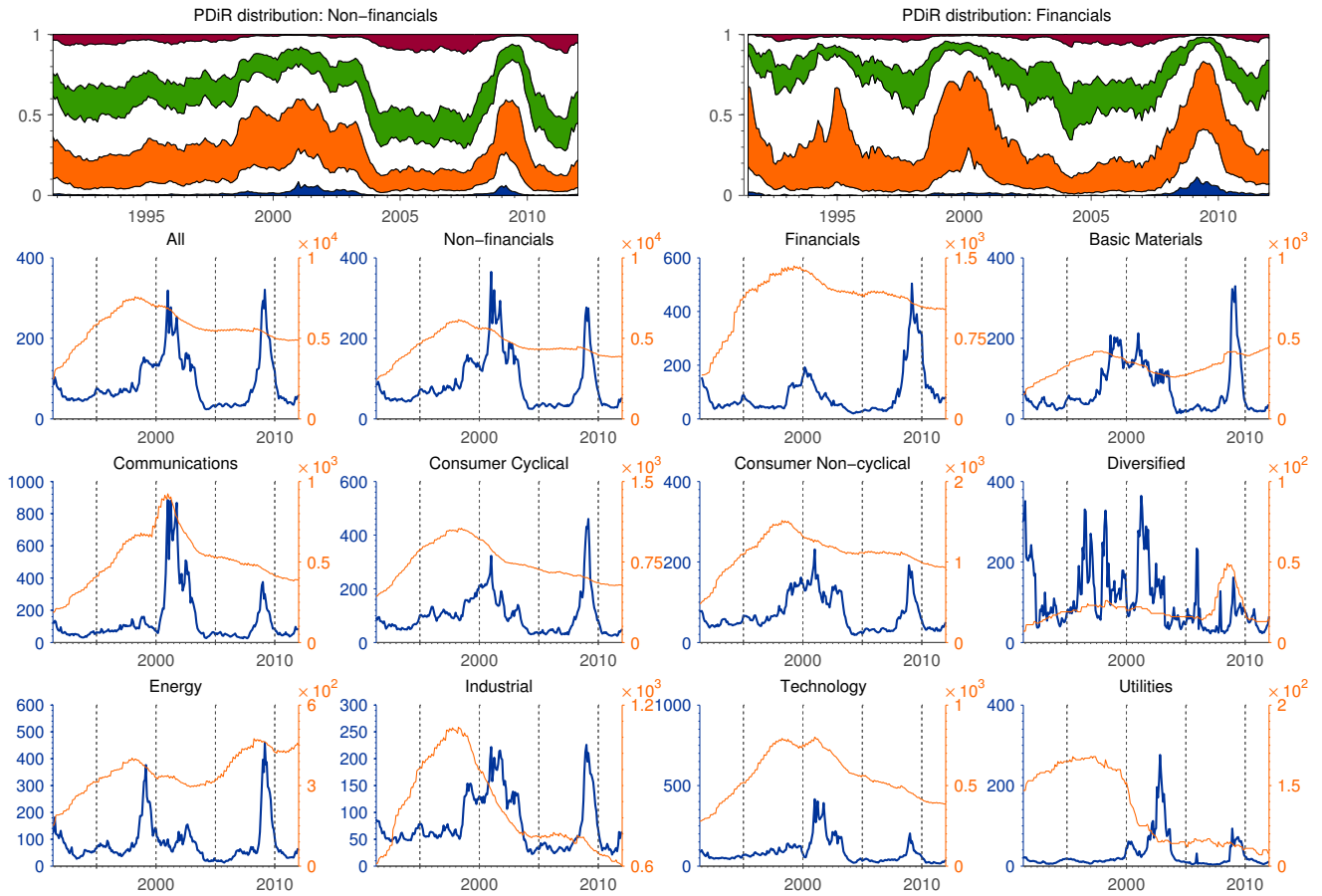
Asia Pacific - developed economies



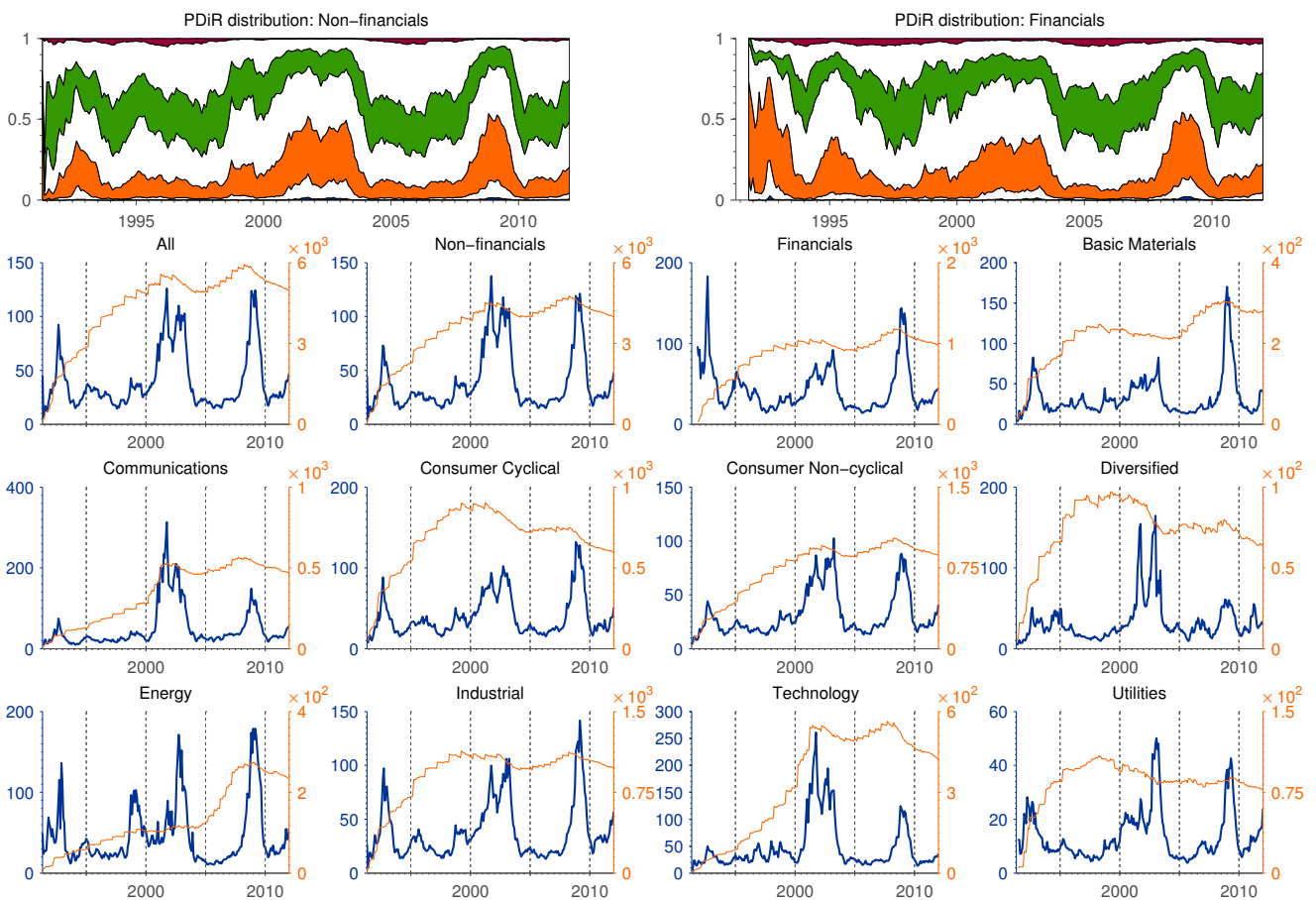
Asia Pacific - emerging economies



North America

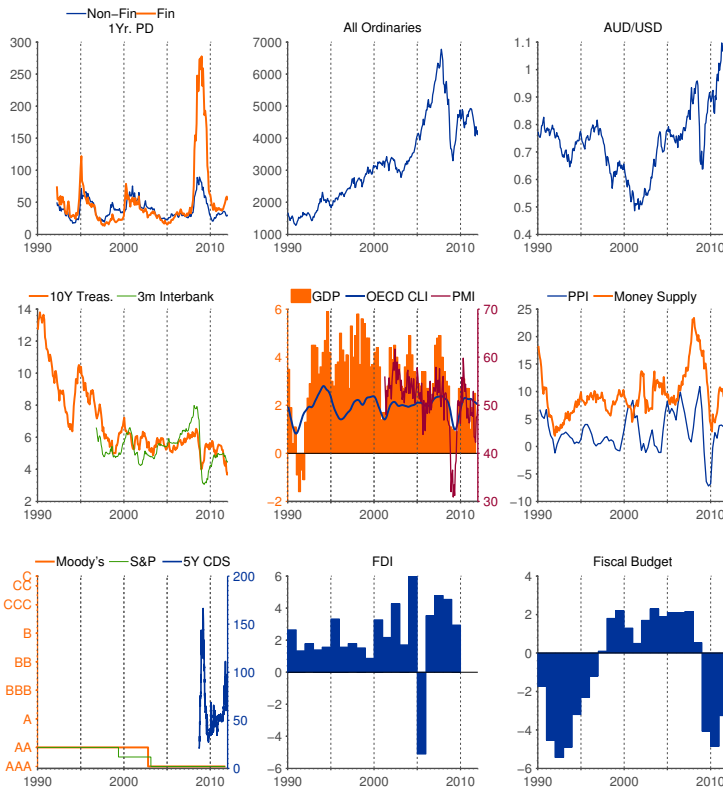


Western Europe

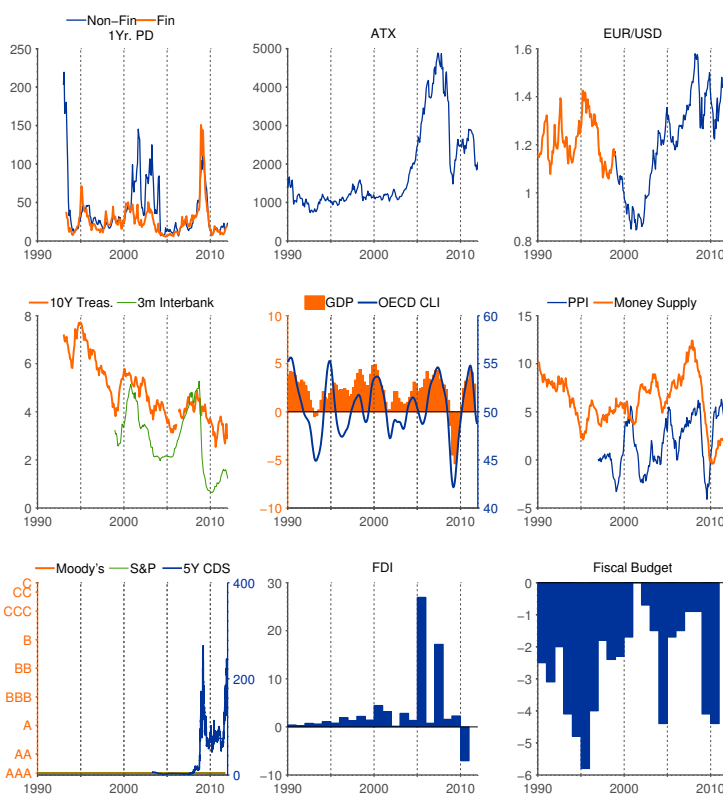


C Macroeconomic Indicators

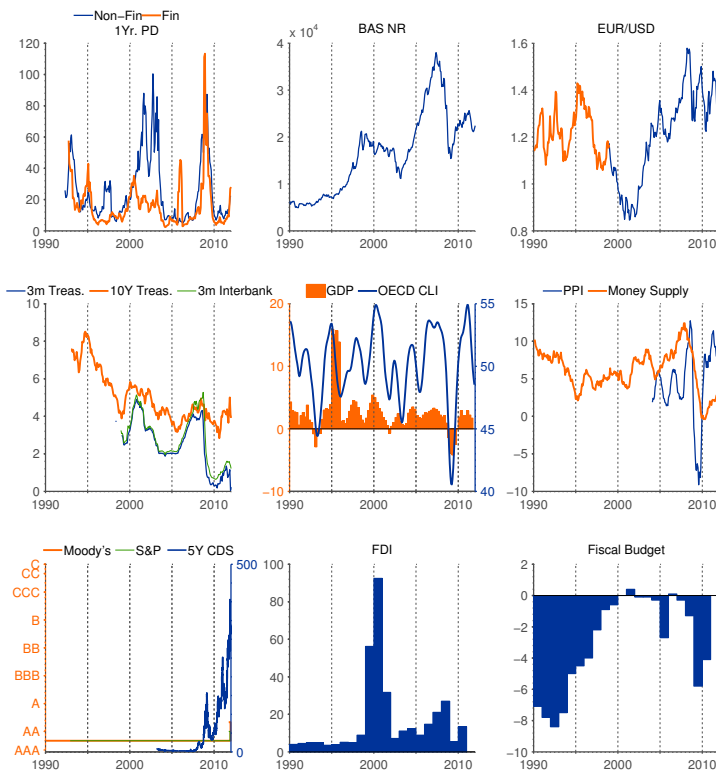
Descriptions of the data contained in this section are provided in Appendix D.



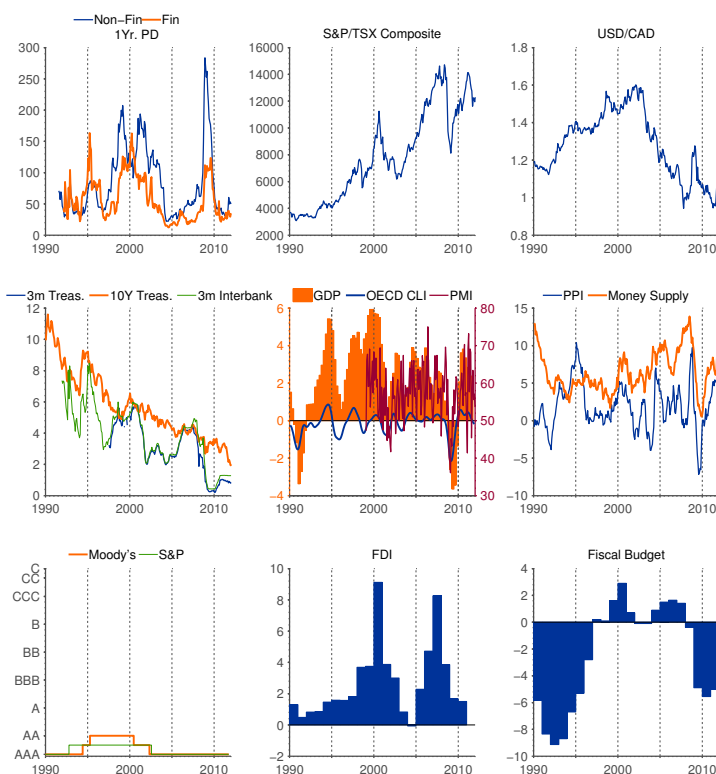
Australia	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	32.98	31.56	35.77	33.59	30.71
1Yr. PD, Fin.	41.32	39.37	39.53	51.06	53.26
All Ordinaries	4847	4929	4660	4070	4111
AUD/USD	1.02	1.03	1.07	0.97	1.02
10Y Treas. Yield (%)	5.54	5.49	5.21	4.22	3.67
3m Interbank (%)	4.97	4.92	4.97	4.87	4.50
GDP (YoY%)	2.7	1.0	1.9	2.5	-
OECD CLI	101.27	101.30	100.84	100.54	100.16*
PMI	46.3	47.9	52.9	42.3	50.2
PPI (YoY%)	3.8	3.9	3.6	3.4	2.7
Money Supply (YoY%)	10.41	10.03	9.14	10.12	7.81*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	50.41	52.31	57.12	98.90	81.83
Fiscal Budget (%GDP)	-4.85	-	-	-	-3.26



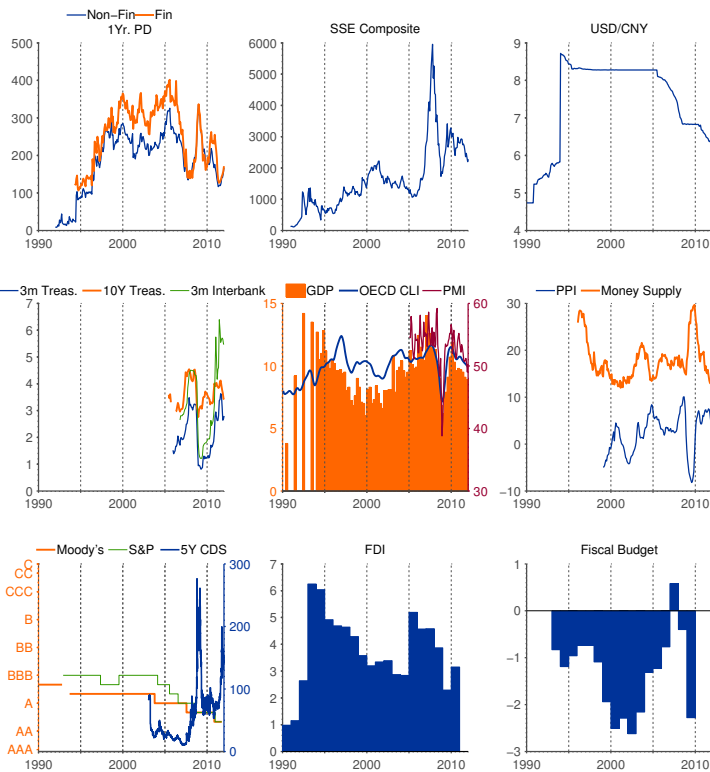
Austria	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	11.39	18.52	18.42	17.04	23.74
1Yr. PD, Fin.	11.71	10.74	8.39	15.54	19.86
ATX	2904	2882	2767	1948	1892
EUR/USD	1.34	1.42	1.45	1.34	1.30
10Y Treas. Yield (%)	3.51	3.80	3.50	2.68	2.90
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	3.4	4.4	4.1	2.9	-
OECD CLI	104.55	104.58	102.55	99.73	98.73*
PPI (YoY%)	5.4	6.3	4.7	4.2	4.0*
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	100.31	59.50	61.45	170.95	190.37
FDI (%GDP)	-7.07	-	-	-	-
Fiscal Budget (%GDP)	-4.40	-	-	-	-



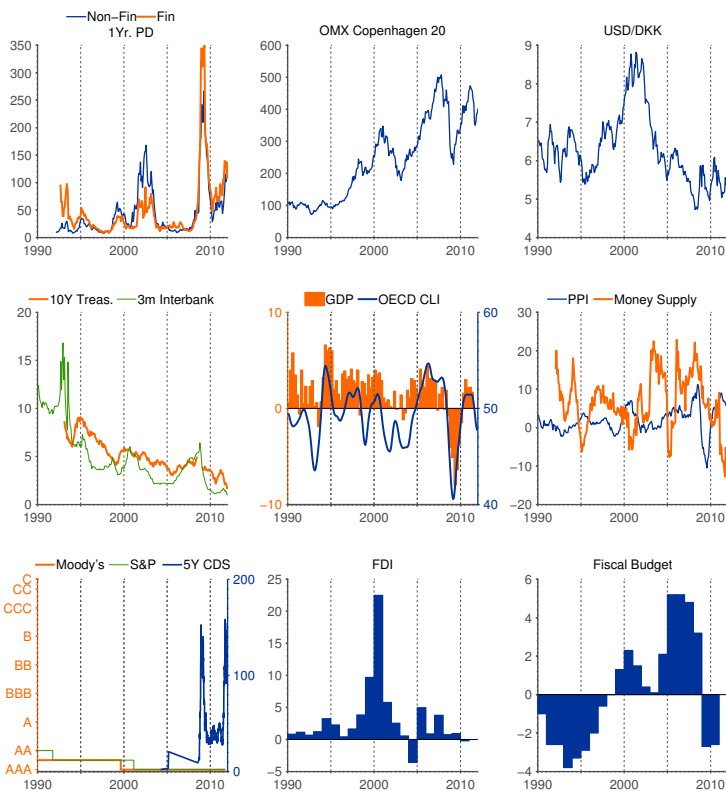
Belgium	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	9.61	9.68	11.58	12.81	21.91
1Yr. PD, Fin.	5.37	6.24	7.45	9.08	28.00
BAS NR	24376	24803	24165	21347	21997
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	0.54	1.05	1.35	0.83	0.05
10Y Treas. Yield (%)	3.97	4.30	4.09	3.65	4.09
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	2.1	2.9	2.2	1.7	-
OECD CLI	104.67	104.59	102.36	99.67	98.53*
PPI (YoY%)	8.9	11.1	9.2	8.0	5.6
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa3	Aa3
Sov. Rating, S&P	AA+	AA+	AA+	AA	AA
5Y CDS (bps)	217.9	139.4	143.1	260.0	316.2
FDI (%GDP)	13.44	-	-	-	-
Fiscal Budget (%GDP)	-4.10	-	-	-	-



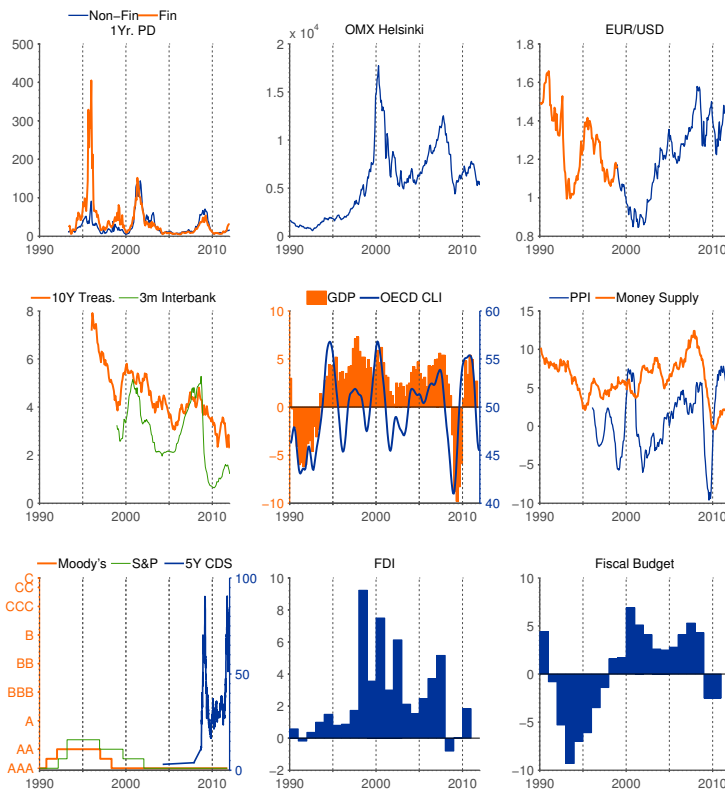
Canada	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	33.32	32.01	35.57	60.35	49.89
1Yr. PD, Fin.	26.25	27.25	26.24	38.88	34.85
S&P/TSX Composite	13443	14116	13301	11624	11955
USD/CAD	1.00	0.97	0.96	1.05	1.02
3m Treas. Yield (%)	1.05	0.96	0.90	0.81	0.80
10Y Treas. Yield (%)	3.12	3.35	3.11	2.15	1.94
3m Interbank (%)	1.30	1.30	1.29	1.28	1.28
GDP (YoY%)	3.35	2.84	2.12	2.38	-
OECD CLI	101.97	102.12	100.87	99.61	99.11*
PMI	50.0	73.2	68.2	63.4	53.6
PPI (YoY%)	3.05	5.15	5.43	5.39	4.25*
Money Supply (YoY%)	6.94	8.41	6.48	8.38	8.38*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	1.50	-	-	-	-
Fiscal Budget (%GDP)	-5.55	-	-	-	-5.02



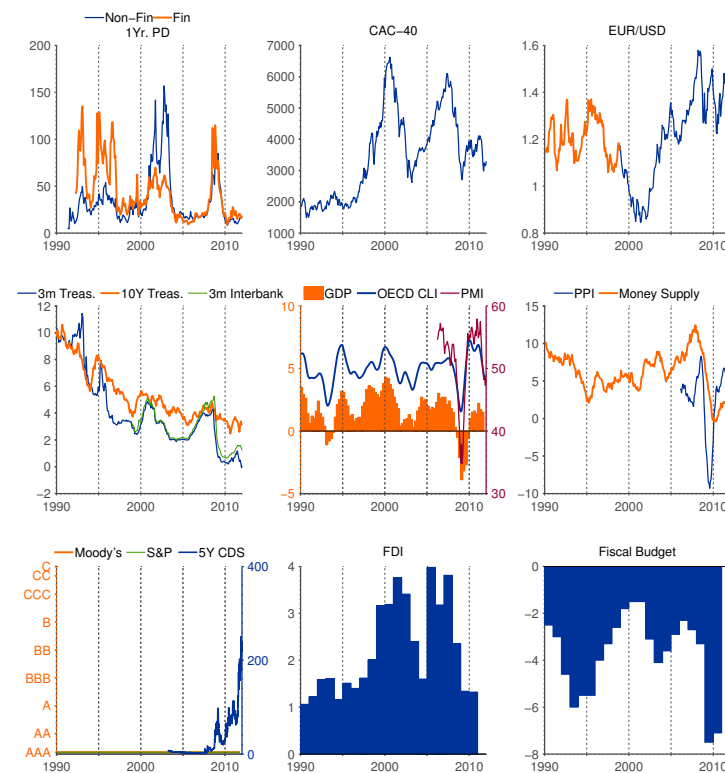
China	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	163.58	127.09	121.08	141.24	167.13
1Yr. PD, Fin.	231.94	151.04	128.09	143.90	171.42
SSE Composite	2808	2928	2762	2359	2199
USD/CNY	6.61	6.55	6.46	6.38	6.29
3m Treas. Yield (%)	2.82	2.63	3.37	3.59	2.70
10Y Treas. Yield (%)	3.91	3.91	3.89	3.93	3.44
3m Interbank (%)	4.62	4.17	6.39	5.65	5.47
GDP (YoY%)	9.8	9.7	9.5	9.1	8.9
OECD CLI	101.50	101.14	100.60	100.23	99.96*
PMI	53.9	53.4	50.9	51.2	50.3
PPI (YoY%)	5.9	7.3	7.1	6.5	1.7
Money Supply (YoY%)	19.7	16.6	15.9	13.0	13.6
Sov. Rating, Moody's	Aa3	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
5Y CDS (bps)	69.35	73.77	85.45	190.25	148.74
FDI (%GDP)	3.15	-	-	-	-



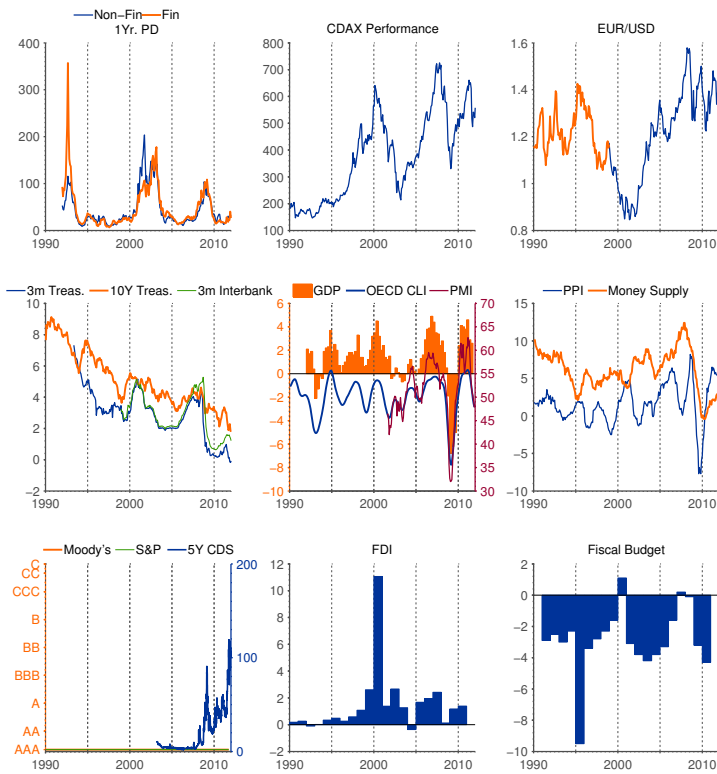
Denmark	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	55.60	66.45	52.34	114.69	113.86
1Yr. PD, Fin.	66.13	86.58	104.17	139.04	137.07
OMX Copenhagen 20	457.6	467.1	431.1	350.3	389.9
USD/DKK	5.57	5.27	5.14	5.56	5.73
10Y Treas. Yield (%)	3.02	3.59	3.24	2.08	1.68
3m Interbank (%)	1.21	1.34	1.61	1.38	1.00
GDP (YoY%)	2.2	2.2	1.7	0.0	-
OECD CLI	101.39	101.46	100.78	98.70	97.71*
PPI (YoY%)	7.7	9.0	6.8	5.9	4.1
Money Supply (YoY%)	9.08	-4.98	-8.71	-5.19	-6.28
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	45.86	38.09	44.51	143.64	137.00
FDI (%GDP)	-0.22	-	-	-	-
Fiscal Budget (%GDP)	-2.60	-	-	-	-



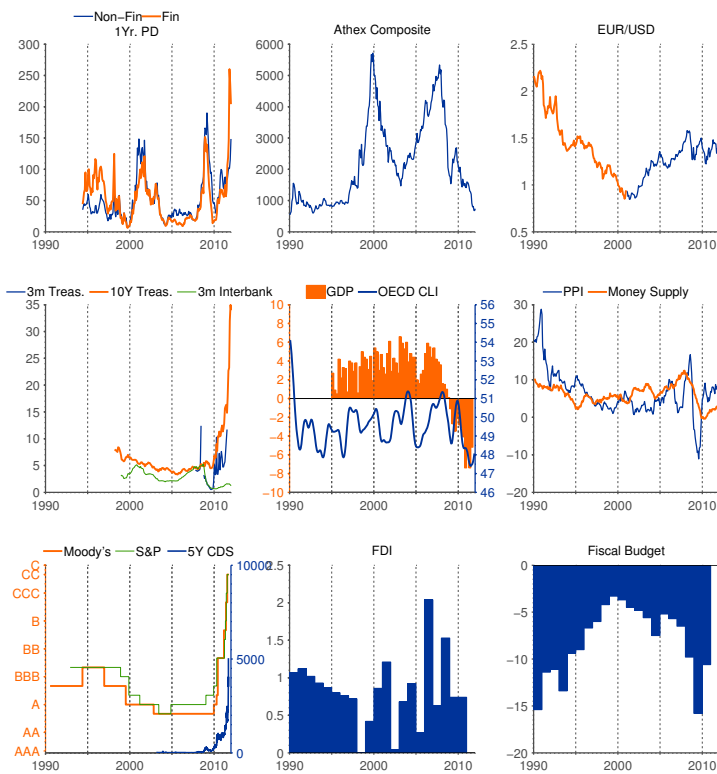
Finland	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	7.84	10.28	9.56	15.40	16.89
1Yr. PD, Fin.	5.82	12.32	10.51	23.47	31.68
OMX Helsinki	7662	7520	6717	5272	5355
EUR/USD	1.34	1.42	1.45	1.34	1.30
10Y Treas. Yield (%)	3.16	3.57	3.34	2.34	2.31
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	5.4	4.9	1.9	2.7	-
OECD CLI	105.22	103.86	100.29	96.42	95.46*
PPI (YoY%)	7.8	7.8	5.9	4.3	1.8
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	33.45	29.35	35.12	80.89	77.83
FDI (%GDP)	1.84	-	-	-	-
Fiscal Budget (%GDP)	-2.50	-	-	-	-



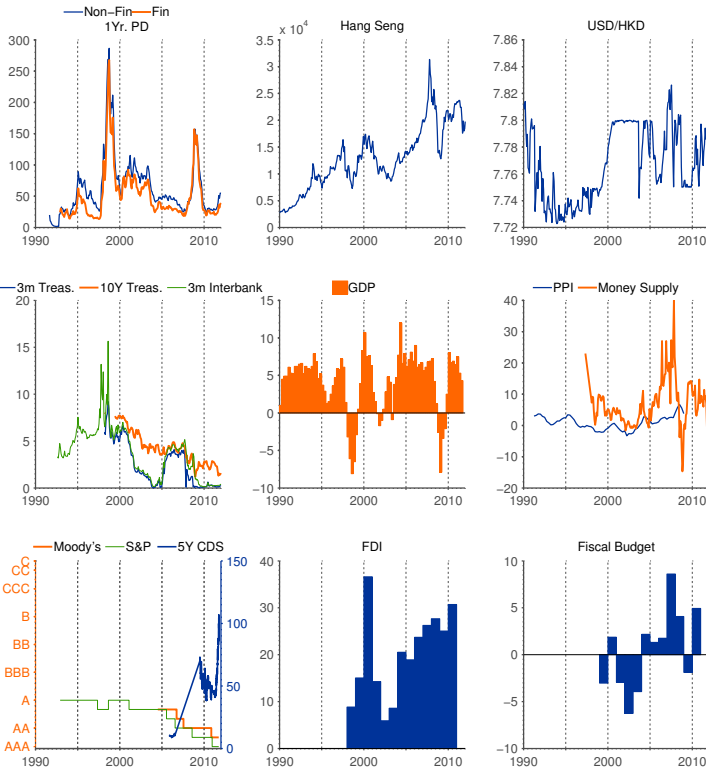
France	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	15.47	12.65	9.75	16.16	18.52
1Yr. PD, Fin.	25.27	23.37	16.72	20.50	17.82
CAC-40	3805	3989	3982	2982	3160
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	0.40	0.80	1.18	0.38	-0.06
10Y Treas. Yield (%)	3.36	3.71	3.41	2.60	3.15
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	1.4	2.2	1.7	1.5	-
OECD CLI	103.71	103.24	101.16	98.92	98.20*
PMI	57.2	55.4	52.5	48.2	48.9
PPI (YoY%)	5.4	6.7	6.1	6.1	5.6*
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	101.02	74.45	80.17	187.31	222.30
FDI (%GDP)	1.32	-	-	-	-
Fiscal Budget (%GDP)	-7.10	-	-	-	-



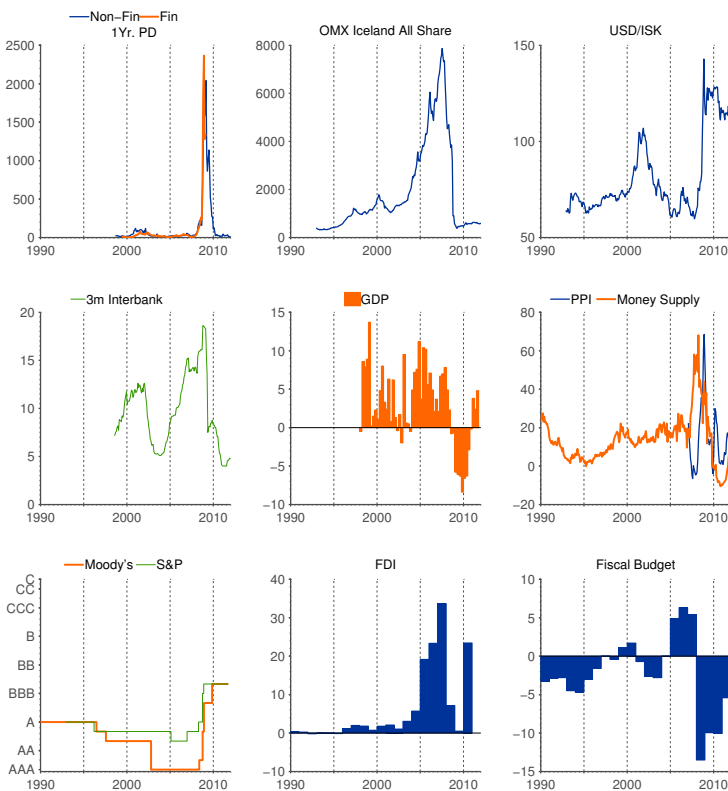
Germany	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	17.94	15.41	21.57	28.93	33.14
1Yr. PD, Fin.	17.70	16.25	28.15	22.52	26.61
CDAX Performance	611.3	623.0	651.4	487.2	520.7
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	0.31	0.75	0.98	0.11	-0.18
10Y Treas. Yield (%)	2.96	3.35	3.02	1.89	1.83
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	3.8	4.6	2.9	2.6	-
OECD CLI	105.64	105.58	103.29	99.58	97.87*
PMI	60.7	60.9	54.6	50.3	48.4
PPI (YoY%)	5.2	6.1	5.6	5.5	4.0
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	58.44	45.00	42.84	112.23	103.73
FDI (%GDP)	1.39	-	-	-	-
Fiscal Budget (%GDP)	-4.30	-	-	-	-



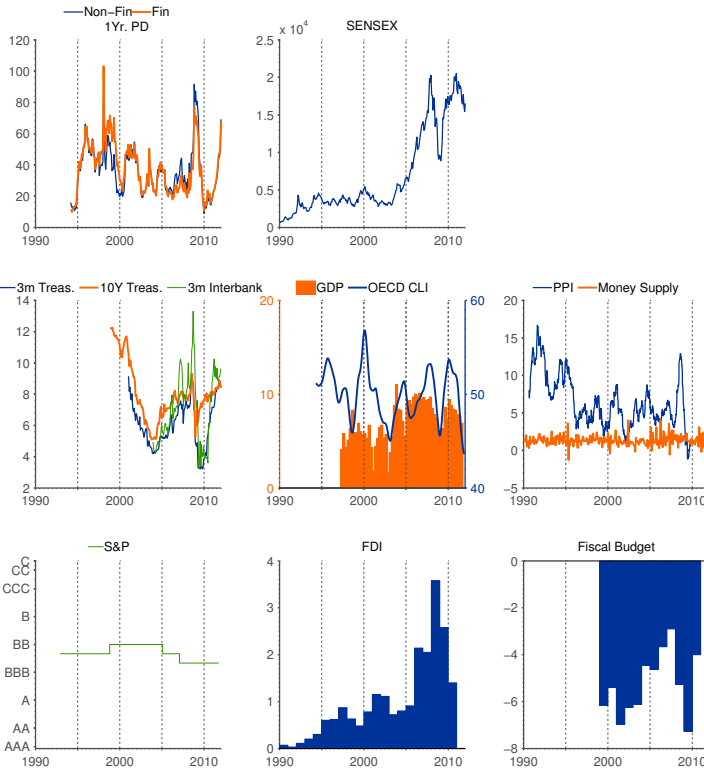
Greece	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	86.53	85.16	84.96	102.28	148.42
1Yr. PD, Fin.	60.13	68.01	66.95	146.89	204.15
Athex Composite	1414	1535	1279	798	680
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	6.46	5.26	9.62	11.71*	-
10Y Treas. Yield (%)	12.47	12.84	16.34	22.69	34.96
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	-7.4	-5.5	-7.4	-5.2	-
OECD CLI	98.27	97.74	97.40	97.60	98.07*
PPI (YoY%)	6.9	8.1	6.3	8.1	7.2*
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Ba1	B1	Caa1	Ca	Ca
Sov. Rating, S&P	BB+	BB-	CCC	CC	CC
5Y CDS (bps)	1074.1	1003.1	1952.4	3535.7	-
FDI (%GDP)	0.74	-	-	-	-
Fiscal Budget (%GDP)	-10.60	-	-	-	-



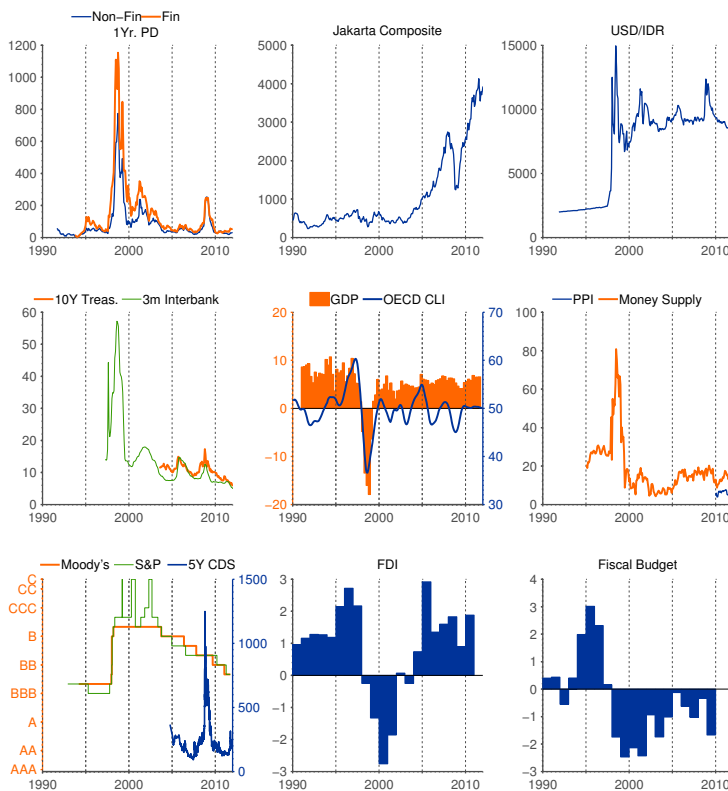
Hong Kong	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	27.04	28.41	30.98	50.82	54.61
1Yr. PD, Fin.	22.61	20.28	22.25	35.89	38.90
Hang Seng	23035	23528	22398	17592	18434
USD/HKD	7.77	7.78	7.78	7.79	7.77
3m Treas. Yield (%)	0.29	0.22	0.10	0.13	0.24
10Y Treas. Yield (%)	2.87	2.69	2.33	1.31	1.51
3m Interbank (%)	0.28	0.26	0.26	0.28	0.38
GDP (YoY%)	6.4	7.5	5.3	4.3	-
Money Supply (YoY%)	7.6	7.2	8.4	-0.4	3.5*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	45.52	43.51	57.84	104.18	86.63*
FDI (%GDP)	30.70	-	-	-	-
Fiscal Budget (%GDP)	4.94	-	-	-	-



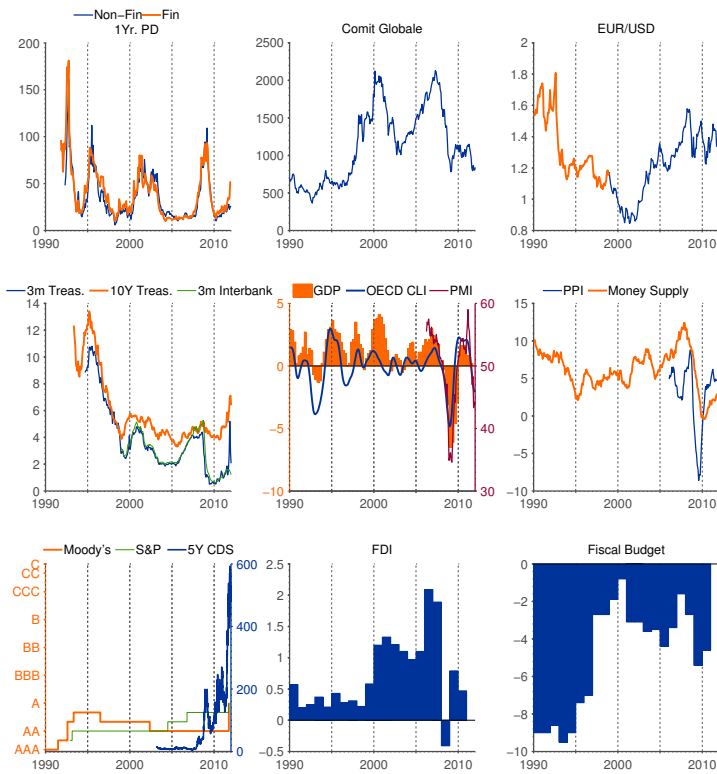
Iceland	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	12.45	21.28	24.93	14.86	7.57
OMX Iceland All Share	569.2	626.8	605.0	576.8	580.7
USD/ISK	114.9	114.1	114.3	118.3	122.7
3m Interbank (%)	4.15	4.00	4.00	4.60	4.80
GDP (YoY%)	-0.2	3.8	2.4	4.8	-
PPI (YoY%)	2.64	6.97	13.01	13.86	8.37*
Money Supply (YoY%)	-9.92	-8.23	-5.00	5.46	8.61
Sov. Rating, Moody's	Baa3	Baa3	Baa3	Baa3	Baa3
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	23.42	-	-	-	-
Fiscal Budget (%GDP)	-10.06	-	-	-	-5.42



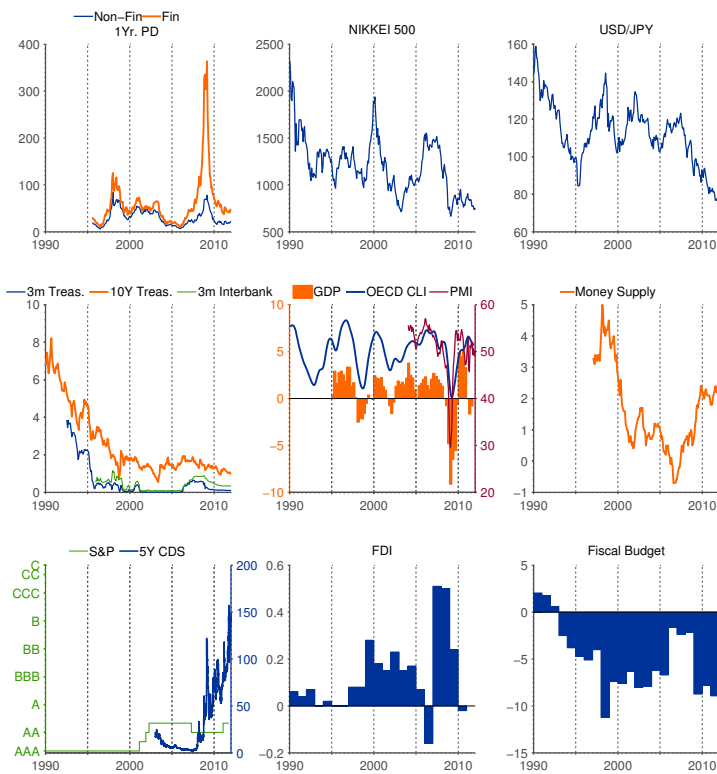
India	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.95	24.64	30.69	45.25	69.17
1Yr. PD, Fin.	19.23	24.55	32.51	47.12	67.73
SENSEX	20509	19445	18846	16454	15455
3m Treas. Yield (%)	7.18	7.22	8.15	8.42	8.53
10Y Treas. Yield (%)	7.92	7.99	8.33	8.43	8.57
3m Interbank (%)	8.80	10.25	9.00	8.88	9.60
GDP (YoY%)	8.3	7.8	7.7	6.9	-
OECD CLI	101.76	99.67	96.47	94.28	93.60*
Money Supply (YoY%)	2.26	0.45	1.38	-0.22	1.58*
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	1.40	-	-	-	-
Fiscal Budget (%GDP)	-4.00	-	-	-	-



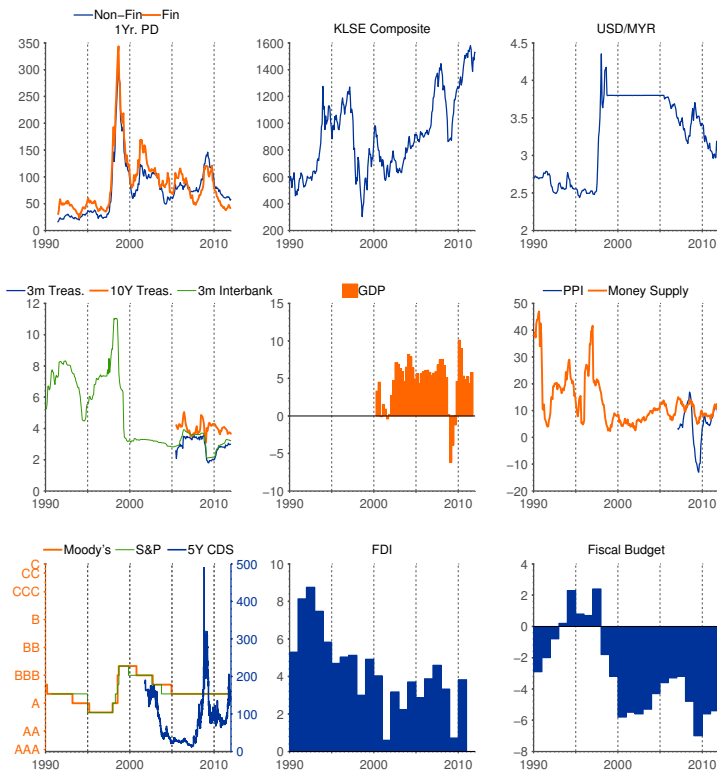
Indonesia	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	24.54	26.32	21.13	29.64	31.46
1Yr. PD, Fin.	33.66	36.67	38.15	56.75	54.53
Jakarta Composite	3704	3679	3889	3549	3822
USD/IDR	8996	8708	8579	8875	9069
10Y Treas. Yield (%)	7.61	8.04	7.55	6.92	6.03
3m Interbank (%)	6.63	7.05	7.14	6.10	5.27
GDP (YoY%)	6.9	6.5	6.5	6.6	-
OECD CLI	100.37	100.33	100.31	100.15	100.05*
PPI (YoY%)	7.25	7.43	4.66	4.87	4.44
Money Supply (YoY%)	15.32	16.06	13.07	16.19	16.27*
Sov. Rating, Moody's	Ba2	Ba1	Ba1	Ba1	Ba1
Sov. Rating, S&P	BB	BB	BB+	BB+	BB+
5Y CDS (bps)	128.2	144.0	141.7	291.5	210.0
FDI (%GDP)	1.88	-	-	-	-



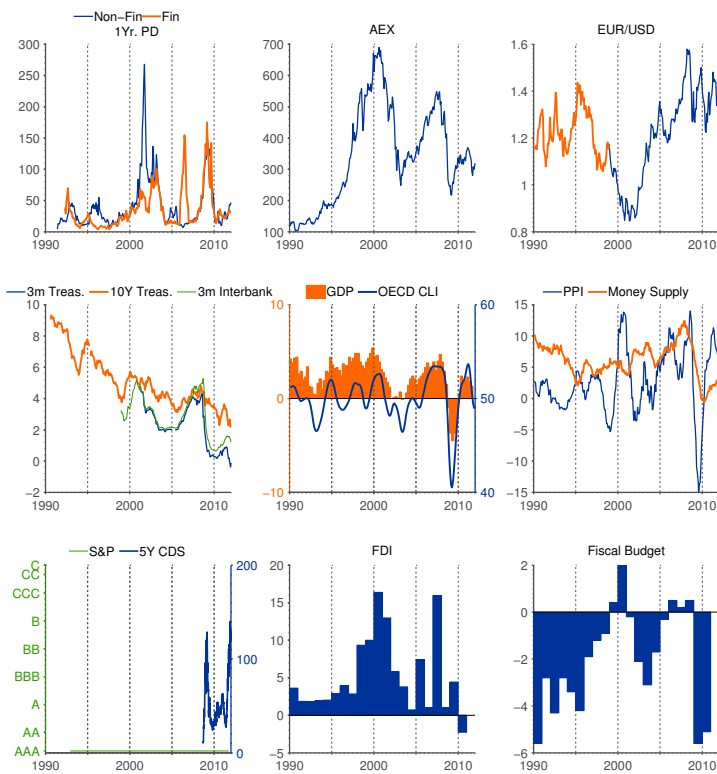
Italy	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.58	26.74	19.73	27.88	26.12
1Yr. PD, Fin.	24.42	26.40	23.82	33.13	51.69
Comit Globale	1048	1120	1039	796	806
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	1.33	1.08	1.58	1.60	2.86
10Y Treas. Yield (%)	4.82	4.82	4.88	5.54	7.11
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	1.6	0.8	0.7	0.2	-
OECD CLI	104.15	103.15	100.37	97.07	95.78*
PMI	54.7	56.2	49.8	48.3	44.3
PPI (YoY%)	4.7	6.2	4.6	4.7	4.5*
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aa2	Aa2	Aa2	A2	A2
Sov. Rating, S&P	A+	A+	A+	A	A
5Y CDS (bps)	238.5	150.9	171.0	470.0	503.2
FDI (%GDP)	0.47	-	-	-	-
Fiscal Budget (%GDP)	-4.60	-	-	-	-



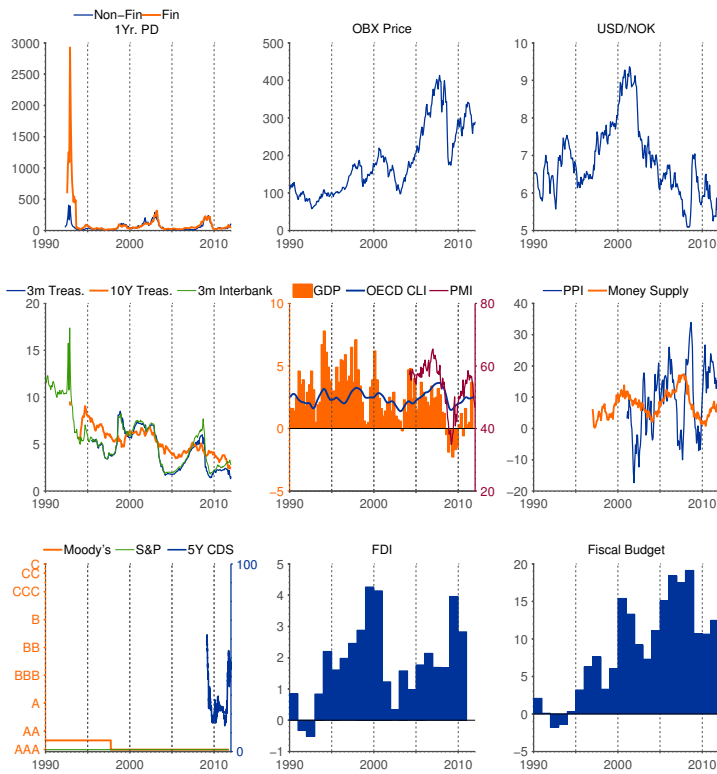
Japan	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	16.43	22.04	18.07	19.77	22.18
1Yr. PD, Fin.	41.35	51.85	43.17	44.00	48.46
NIKKEI 500	865.5	846.2	845.7	770.3	738.8
USD/JPY	81.12	83.13	80.56	77.06	76.91
3m Treas. Yield (%)	0.12	0.11	0.10	0.10	0.10
10Y Treas. Yield (%)	1.13	1.26	1.14	1.03	0.99
3m Interbank (%)	0.34	0.34	0.34	0.34	0.34
GDP (YoY%)	3.29	-0.04	-1.65	-0.80	-
OECD CLI	102.45	103.20	102.36	101.61	101.47*
PMI	48.3	46.4	50.7	49.3	50.2
Money Supply (YoY%)	1.8	2.0	2.3	2.3	2.6
Sov. Rating, S&P	AA	AA-	AA-	AA-	AA-
5Y CDS (bps)	72.42	99.75	90.77	146.47	143.07
FDI (%GDP)	-0.02	-	-	-	-
Fiscal Budget (%GDP)	-7.81	-	-	-	-8.93



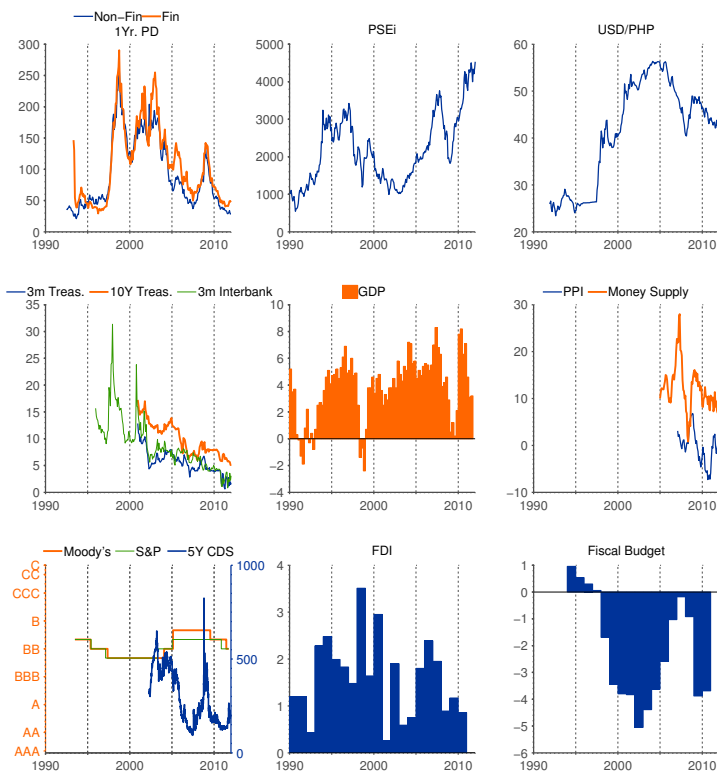
Malaysia	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	66.13	61.30	62.22	62.75	59.02
1Yr. PD, Fin.	44.92	40.86	40.40	47.59	42.57
KLSE Composite	1519	1545	1579	1387	1531
USD/MYR	3.06	3.03	3.02	3.19	3.17
3m Treas. Yield (%)	2.81	2.80	2.89	3.05	2.99
10Y Treas. Yield (%)	4.04	4.10	3.93	3.70	3.70
3m Interbank (%)	2.98	3.04	3.29	3.26	3.22
GDP (YoY%)	4.8	5.2	4.3	5.8	-
PPI (YoY%)	5.5	7.9	10.7	11.2	9.1*
Money Supply (YoY%)	6.76	7.97	12.36	12.52	12.41*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	74.51	75.00	90.68	196.85	142.74
FDI (%GDP)	3.83	-	-	-	-
Fiscal Budget (%GDP)	-5.60	-	-	-	-5.40



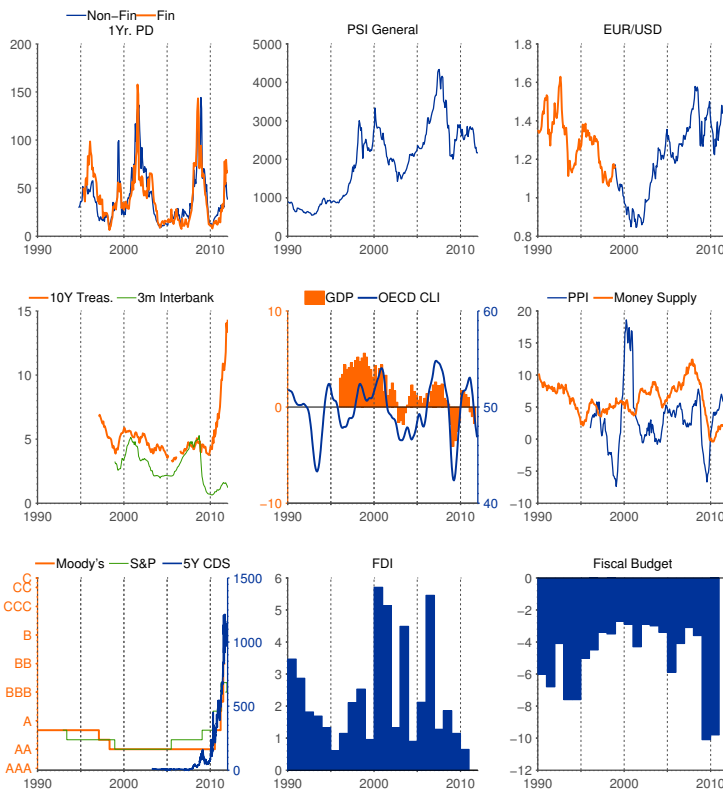
Netherlands	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	22.56	31.69	20.33	33.29	46.75
1Yr. PD, Fin.	23.53	21.65	26.07	33.49	33.02
AEX	354.6	365.6	339.6	280.2	312.5
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	0.36	0.81	0.90	0.16	-0.39
10Y Treas. Yield (%)	3.15	3.64	3.34	2.29	2.19
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	2.0	2.3	1.8	1.3	-
OECD CLI	103.17	103.62	101.91	99.64	98.93*
PPI (YoY%)	7.8	10.6	9.1	7.6	6.7*
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	63.04	37.75	38.03	105.14	121.85
FDI (%GDP)	-2.26	-	-	-	-
Fiscal Budget (%GDP)	-5.10	-	-	-	-



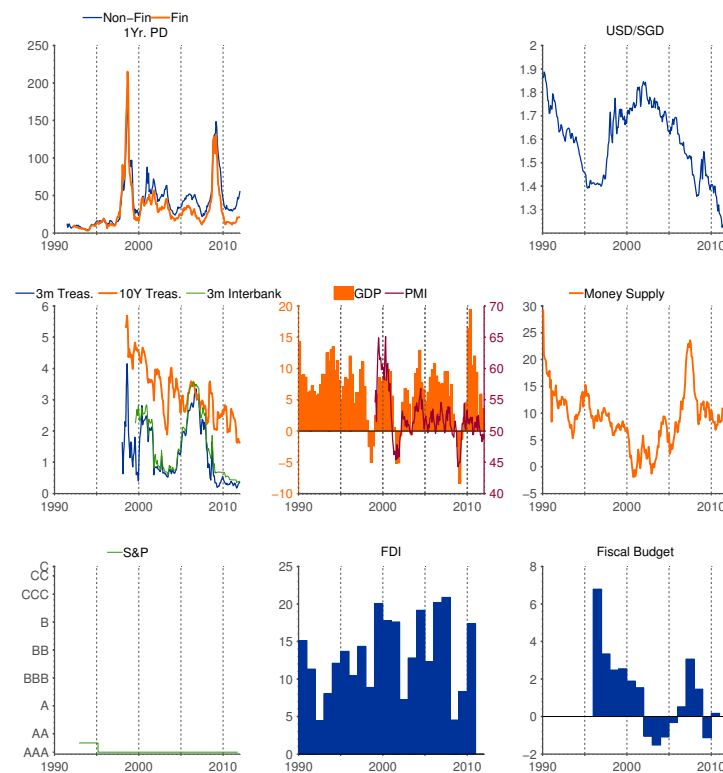
Norway	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	32.08	29.93	36.48	71.44	109.50
1Yr. PD, Fin.	35.68	44.09	44.26	87.19	61.74
OBX Price	335.3	339.8	310.5	258.6	284.0
USD/NOK	5.82	5.54	5.39	5.87	5.98
3m Treas. Yield (%)	2.20	2.25	2.33	1.76	1.31
10Y Treas. Yield (%)	3.72	3.83	3.41	2.38	2.40
3m Interbank (%)	2.60	2.67	2.92	3.03	2.89
GDP (YoY%)	1.6	0.3	0.5	3.7	-
OECD CLI	99.96	99.60	99.66	99.95	100.27*
PMI	54.3	57.4	56.2	53.8	46.6
PPI (YoY%)	23.9	21.4	14.4	15.3	8.2
Money Supply (YoY%)	5.3	6.5	6.3	7.7	6.3*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	23.49	17.14	21.37	50.03	44.28
FDI (%GDP)	2.83	-	-	-	-
Fiscal Budget (%GDP)	10.64	-	-	-	12.48



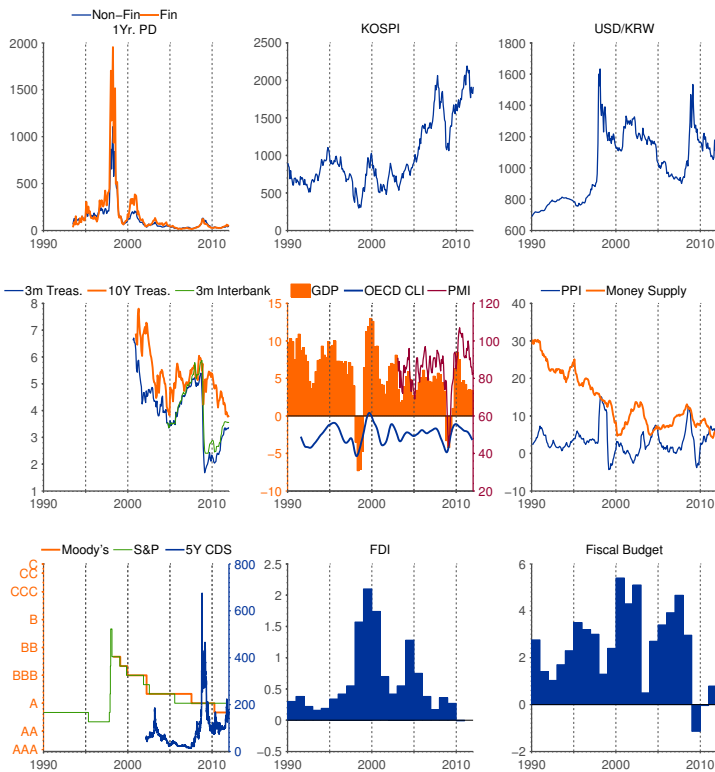
Philippines	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	39.11	35.65	32.67	30.85	28.50
1Yr. PD, Fin.	45.12	45.47	41.55	44.25	49.90
PSEi	4201	4055	4291	4000	4372
USD/PHP	43.80	43.36	43.38	43.77	43.84
3m Treas. Yield (%)	1.20	1.04	2.90	2.75	1.45
10Y Treas. Yield (%)	5.80	6.98	6.41	5.86	5.07
3m Interbank (%)	1.06	2.00	3.75	2.38	2.25
GDP (YoY%)	7.1	4.6	3.1	3.2	-
PPI (YoY%)	-5.9	-0.6	2.4	-0.9	1.2*
Money Supply (YoY%)	10.64	10.26	11.37	7.41	7.20*
Sov. Rating, Moody's	Ba3	Ba3	Ba2	Ba2	Ba2
Sov. Rating, S&P	BB	BB	BB	BB	BB
5Y CDS (bps)	127.6	133.1	138.7	256.6	193.5
FDI (%GDP)	0.86	-	-	-	-
Fiscal Budget (%GDP)	-3.69	-	-	-	-



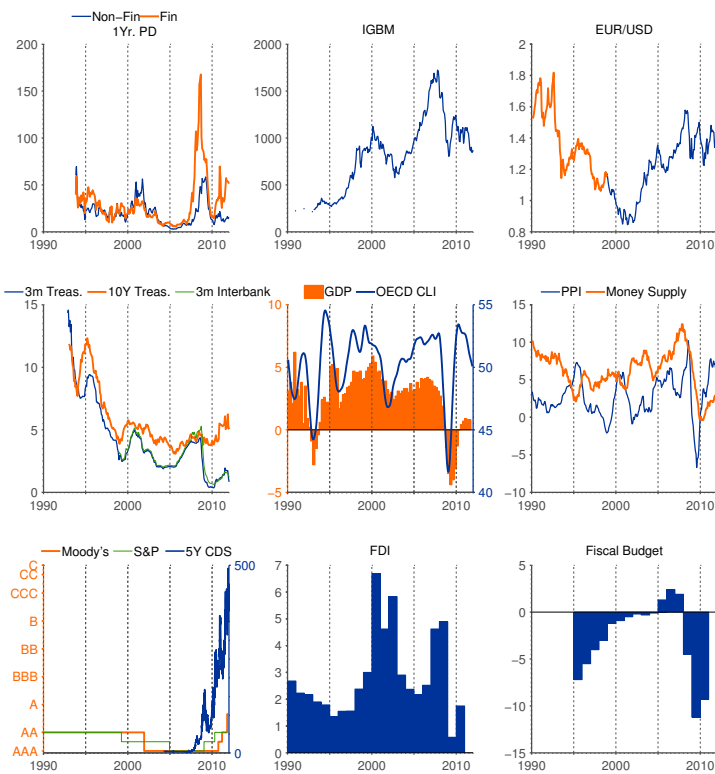
Portugal	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	29.72	32.40	33.61	51.54	37.97
1Yr. PD, Fin.	18.81	27.64	28.90	54.03	68.58
PSI General	2722	2789	2774	2292	2167
EUR/USD	1.34	1.42	1.45	1.34	1.30
10Y Treas. Yield (%)	6.60	8.41	10.90	10.93	13.36
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	1.0	-0.5	-1.0	-1.7	-
OECD CLI	103.01	102.40	100.30	98.01	96.85*
PPI (YoY%)	4.9	7.0	5.8	5.5	4.4
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	A1	A3	Baa1	Ba2	Ba2
Sov. Rating, S&P	A-	BBB-	BBB-	BBB	BBB
5Y CDS (bps)	499.6	579.6	744.8	1109.6	1092.7
FDI (%GDP)	0.65	-	-	-	-
Fiscal Budget (%GDP)	-9.80	-	-	-	-



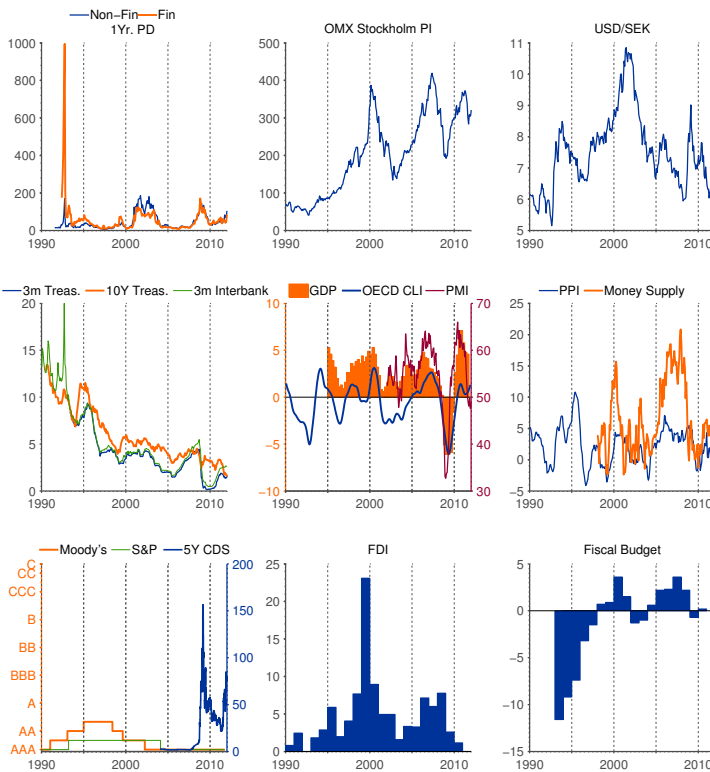
Singapore	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	31.02	31.82	34.48	47.51	55.94
1Yr. PD, Fin.	11.66	13.37	14.39	20.91	21.76
USD/SGD	1.28	1.26	1.23	1.31	1.30
3m Treas. Yield (%)	0.39	0.25	0.32	0.22	0.37
10Y Treas. Yield (%)	2.71	2.48	2.31	1.62	1.63
3m Interbank (%)	0.44	0.44	0.44	0.38	0.39
GDP (YoY%)	12.0	9.4	1.0	5.9	3.6
PMI	50.7	50.1	50.4	48.3	49.5
Money Supply (YoY%)	8.3	8.6	10.6	11.3	10.2*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	17.35	-	-	-	-
Fiscal Budget (%GDP)	0.17	-	-	-	-



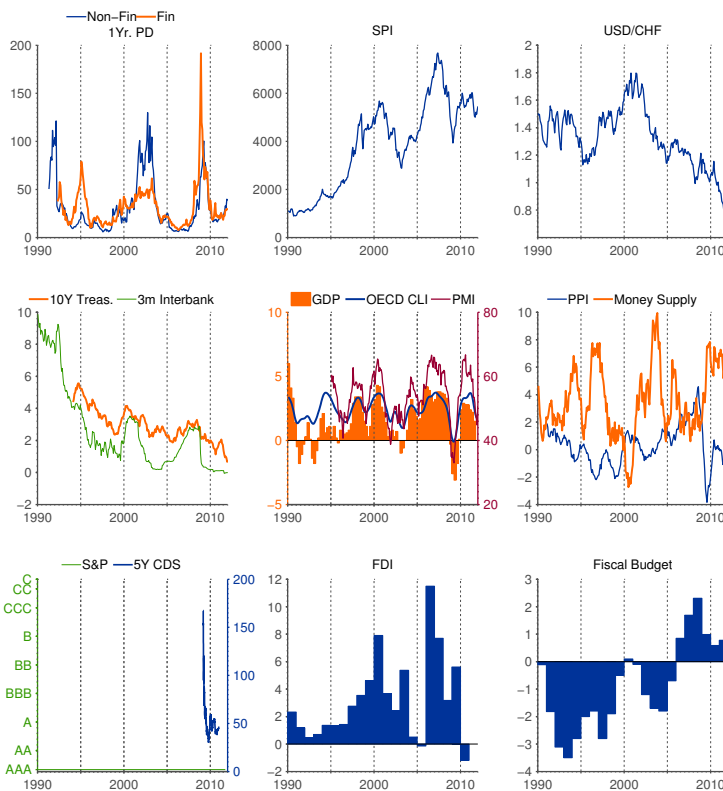
South Korea	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	27.40	39.10	35.51	43.11	45.22
1Yr. PD, Fin.	26.71	34.32	44.75	63.16	57.63
KOSPI	2051	2107	2101	1770	1826
USD/KRW	1126	1097	1068	1178	1152
3m Treas. Yield (%)	2.51	3.04	3.32	3.31	3.36
10Y Treas. Yield (%)	4.52	4.48	4.29	3.95	3.79
3m Interbank (%)	2.80	3.37	3.56	3.57	3.56
GDP (YoY%)	4.7	4.2	3.4	3.5	3.4
OECD CLI	101.98	101.79	100.70	98.66	97.22*
PMI	91.0	96.0	97.0	86.0	83.0
PPI (YoY%)	5.3	7.3	6.2	5.7	4.3
Money Supply (YoY%)	6.9	4.7	4.1	5.7	6.2*
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A	A	A	A	A
5Y CDS (bps)	95.6	101.1	102.9	215.2	169.4
FDI (%GDP)	-0.01	-	-	-	-
Fiscal Budget (%GDP)	-0.04	-	-	-	0.79



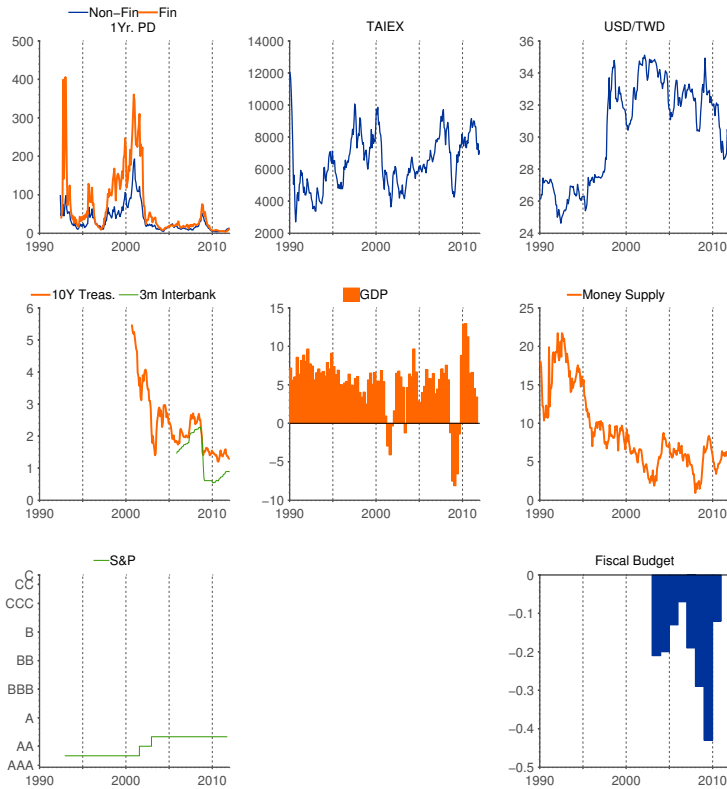
Spain	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.26	12.55	10.67	14.39	15.49
1Yr. PD, Fin.	57.95	36.21	35.07	54.36	51.33
IGBM	1004	1079	1050	863	858
EUR/USD	1.34	1.42	1.45	1.34	1.30
3m Treas. Yield (%)	1.18	1.27	1.40	1.75	1.10
10Y Treas. Yield (%)	5.45	5.30	5.45	5.14	5.09
3m Interbank (%)	1.01	1.24	1.55	1.55	1.36
GDP (YoY%)	0.7	0.9	0.8	0.8	-
OECD CLI	102.69	102.26	101.30	100.56	100.07*
PMI (YoY%)	5.3	7.8	6.7	7.1	5.2
Money Supply (YoY%)	1.7	2.2	2.0	2.9	1.8*
Sov. Rating, Moody's	Aa1	Aa2	Aa2	A1	A1
Sov. Rating, S&P	AA	AA	AA	AA	AA
5Y CDS (bps)	349.51	233.46	269.91	382.24	393.52
FDI (%GDP)	1.75	-	-	-	-
Fiscal Budget (%GDP)	-9.30	-	-	-	-



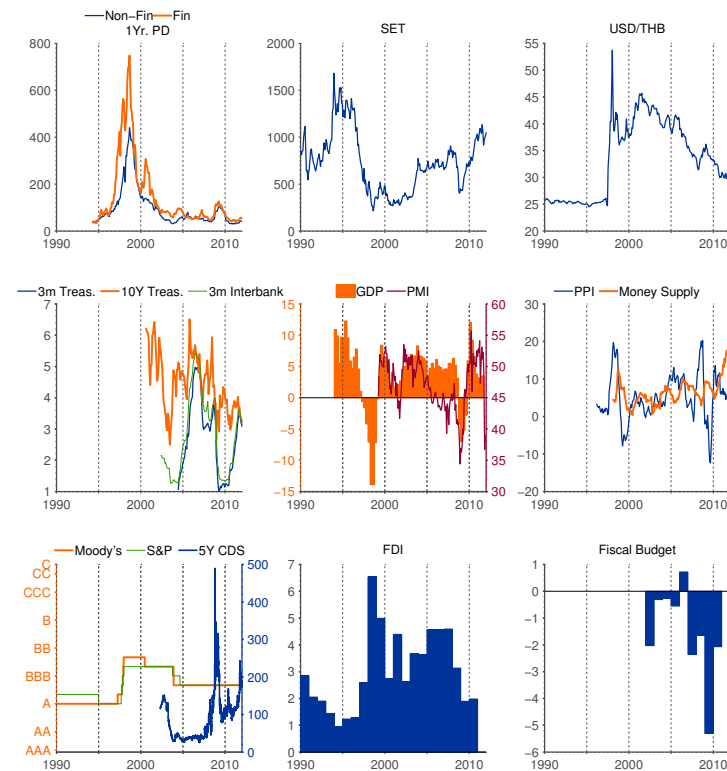
Sweden	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	43.38	64.83	39.23	82.93	104.50
1Yr. PD, Fin.	56.36	69.10	61.39	52.21	84.76
OMX Stockholm PI	368.5	364.3	353.9	283.6	307.0
USD/SEK	6.71	6.32	6.33	6.87	6.89
3m Treas. Yield (%)	1.35	1.70	1.80	1.55	1.40
10Y Treas. Yield (%)	3.27	3.35	2.90	1.74	1.62
3m Interbank (%)	1.95	2.39	2.48	2.51	2.64
GDP (YoY%)	7.1	5.8	4.8	4.6	-
OECD CLI	101.86	100.69	100.78	101.63	102.62*
PMI	60.2	58.6	52.9	48.1	48.9
PPI (YoY%)	4.3	1.7	-0.2	-0.2	-2.1
Money Supply (YoY%)	6.43	5.43	5.61	8.26	6.32*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	34.02	26.83	27.12	61.49	77.83
FDI (%GDP)	1.15	-	-	-	-
Fiscal Budget (%GDP)	0.20	-	-	-	-



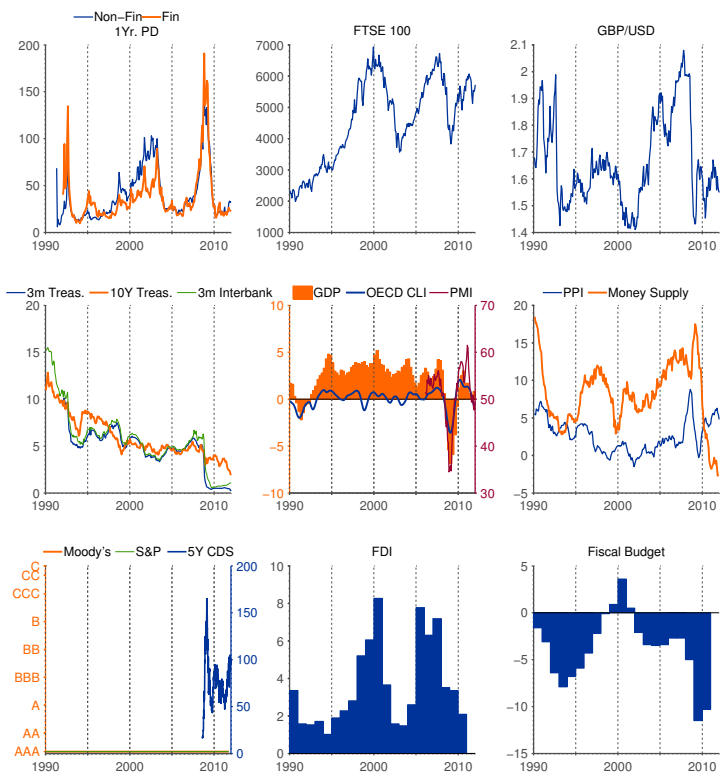
Switzerland	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	18.53	25.55	21.67	32.83	38.62
1Yr. PD, Fin.	22.63	25.50	18.41	28.35	28.44
SPI	5791	5792	5685	5006	5344
USD/CHF	0.94	0.92	0.84	0.91	0.94
10Y Treas. Yield (%)	1.72	1.96	1.73	0.94	0.66
3m Interbank (%)	0.11	0.12	0.11	-0.04	-0.01
GDP (YoY%)	2.8	2.4	2.2	1.5	-
OECD CLI	104.50	104.59	101.65	98.00	96.80*
PMI	61.2	59.3	53.4	48.2	50.7
PPI (YoY%)	0.1	-0.1	-0.8	-1.9	-2.2
Money Supply (YoY%)	7.02	6.81	5.18	7.93	7.67
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	45.52	46.51*	-	-	-
FDI (%GDP)	-1.19	-	-	-	-
Fiscal Budget (%GDP)	0.59	-	-	-	0.78



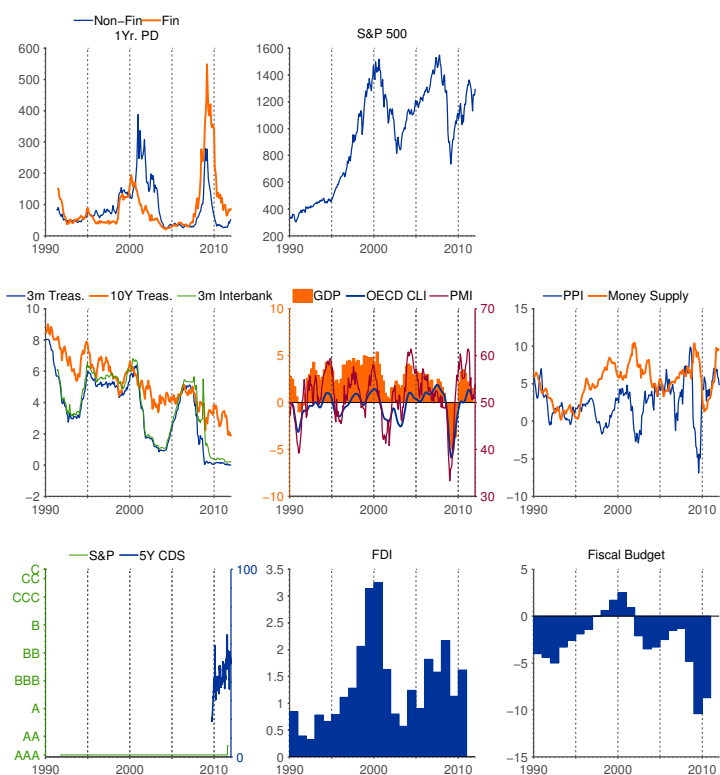
Taiwan	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	4.91	4.87	5.57	11.12	13.17
1Yr. PD, Fin.	5.06	5.81	3.77	7.35	11.59
TAIEX	8973	8683	8653	7225	7072
USD/TWD	29.30	29.41	28.72	30.48	30.28
10Y Treas. Yield (%)	1.55	1.36	1.55	1.38	1.29
3m Interbank (%)	0.72	0.73	0.82	0.90	0.89
GDP (YoY%)	6.50	6.62	4.52	3.42	-
Money Supply (YoY%)	5.34	5.93	5.87	5.71	5.15*
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
Fiscal Budget (%GDP)	-0.12	-	-	-	-



Thailand	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	30.31	30.12	34.54	40.51	42.00
1Yr. PD, Fin.	44.43	38.86	45.18	50.97	59.21
SET	1033	1047	1041	916	1025
USD/THB	30.06	30.28	30.73	31.19	31.55
3m Treas. Yield (%)	1.97	2.50	3.06	3.50	3.14
10Y Treas. Yield (%)	3.73	3.71	3.88	3.69	3.29
3m Interbank (%)	2.15	2.70	3.29	3.60	3.26
GDP (YoY%)	3.8	3.2	2.7	3.5	-
PMI	51.6	54.1	53.1	48.5	39.0*
PPI (YoY%)	6.70	5.86	4.52	5.62	4.47
Money Supply (YoY%)	10.92	13.16	16.30	16.17	15.89*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	97.5	115.4	132.4	237.0	182.0
FDI (%GDP)	1.98	-	-	-	-
Fiscal Budget (%GDP)	-2.07	-	-	-	-



United Kingdom	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	20.96	26.96	19.46	31.05	32.84
1Yr. PD, Fin.	21.63	21.23	18.57	26.36	22.35
FTSE 100	5900	5909	5946	5128	5572
GBP/USD	1.56	1.60	1.61	1.56	1.55
3m Treas. Yield (%)	0.50	0.56	0.51	0.46	0.24
10Y Treas. Yield (%)	3.40	3.69	3.38	2.43	1.98
3m Interbank (%)	0.76	0.82	0.83	0.95	1.08
GDP (YoY%)	1.7	1.7	0.6	0.5	0.8
OECD CLI	102.69	102.51	101.37	99.39	98.38*
PMI	58.7	56.7	51.4	50.8	49.6
PPI (YoY%)	4.2	5.6	5.8	6.3	4.8
Money Supply (YoY%)	-1.6	-1.3	-0.7	-1.6	-2.6*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	72.41	54.75	60.70	94.41	97.50
FDI (%GDP)	2.09	-	-	-	-
Fiscal Budget (%GDP)	-10.30	-	-	-	-



United States	2010		2011		
	Q4	Q1	Q2	Q3	Q4
1Yr. PD, Non-Fin. (bps)	28.73	27.22	27.53	44.77	53.12
1Yr. PD, Fin.	105.01	98.71	64.76	84.25	88.04
S&P 500	1258	1326	1321	1131	1258
3m Treas. Yield (%)	0.12	0.09	0.01	0.02	0.01
10Y Treas. Yield (%)	3.29	3.47	3.16	1.92	1.88
3m Interbank (%)	0.40	0.35	0.20	0.20	0.22
GDP (YoY%)	3.1	2.2	1.6	1.5	-
OECD CLI	101.65	102.69	102.01	100.97	101.24*
PMI	58.5	61.2	55.3	51.6	53.9
PPI (YoY%)	3.8	5.6	6.9	6.9	4.8
Money Supply (YoY%)	3.3	5.0	5.9	9.6	9.6
Sov. Rating, S&P	AAA	AAA	AAA	AA+	AA+
5Y CDS (bps)	42.01	40.97	50.36	51.41	51.00
FDI (%GDP)	1.62	-	-	-	-
Fiscal Budget (%GDP)	-8.70	-	-	-	-

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 Bubill rate for all eurozone countries after their adoption of the euro. For the period before joining the eurozone, their own interest rates are used. 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	Economy	Interbank Rate	Source
Australia	AUD Bank Bill 3-month	CMPT - Composite(Tokyo)	Norway	Norway Interbank Offered Rate Fixing 3 Month	Bloomberg
Austria	Euribor 3-month	European Banking Federation (EBF)	Philippines	Bankers Association of the Philippines Interbank Offering Rates 3 Month PHIBOR	Bankers Association of the Philippines
Belgium	Euribor 3 month	EBF	Portugal	Euribor 3 month	EBF
Canada	Canada Bankers Acceptances 3 Month	Moneyline Telerate	Singapore	Association of Banks in Singapore SGD Sibor Fixing 3-Month	Association of Banks in Singapore
China	Shanghai Interbank Offered Rate Fixing - 3 Month	National Interbank Funding Center	South Korea	Korea Federation of Banks KORIBOR 3 Month	Bank of Korea
Denmark	Copenhagen Interbank Offered Rates 3 Month	Danish Central Bank	Spain	Euribor 3 month	EBF
Finland	Euribor 3 month	EBF	Sweden	Stockholm Interbank Offered Rates 3 Month	NASDAQ OMX
France	Euribor 3 month	EBF	Switzerland	LIBOR Libid Limean CHF 3 Month	Bloomberg
Germany	Euribor 3 month	EBF	Taiwan	Taiwan Interbank Money Center TAIBOR Fixing Rates 3 Month	Taiwan Interbank Money Center
Greece	Euribor 3 month	EBF	Thailand	Thailand Bibor Fixings 3 Month	Bank of Thailand
Hong Kong	HKAB Hong Kong Dollar Hibor Fixings 3 Month	HK Interbank Offered Rate (HIBOR) Fixing	United Kingdom	BA LIBOR GBP 3 Month	British Bankers Association
Iceland	Central Bank of Iceland ISK Reibor 3 Month Interest Rate Fixing	Central Bank of Iceland	United States	ICAP Capital Markets Domestic Fed Funds 3 Month	CTRB ICAP Fixed Income & Money Market Products
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			

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	Economy	Source	Economy	Source
Australia	Australian Bureau of Statistics	India	India Central Statistical Organisation	Sweden	Eurostat
Austria	Eurostat	Indonesia	OECD	Switzerland	State Secretariat for Economic Affairs
Belgium	Eurostat	Italy	Eurostat	Taiwan	Taiwan Directorate General of Budget Accounting & Statistics
Canada	Statistics Canada	Japan	OECD	Thailand	National Economic Development Board
China	National Bureau of Statistics of China	Malaysia	Department of Statistics Malaysia	United Kingdom	UK Office for National Statistics
Denmark	Eurostat	Netherlands	Eurostat	United States	Bureau of Economic Analysis
Finland	Eurostat	Norway	Statistics Norway		
France	Eurostat	Philippines	National Statistical Coordination Board		
Germany	Eurostat	Portugal	Eurostat		
Greece	Eurostat	Singapore	Singapore Ministry of Trade & Industry		
Hong Kong	Census & Statistics Department Hong Kong	South Korea	Bank of Korea		
Iceland	Statistics Iceland	Spain	Eurostat		

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	Economy	Index name	Source
Australia	Australia Manufacturing PPI YoY	Australian Bureau of Statistics	Malaysia	Malaysia Producer Price Index Goods in Domestic Economy (2005=100) YoY	Department of Statistics Malaysia
Austria	Eurostat PPI Austria Industry Excluding Construction YoY	Eurostat	Netherlands	Eurostat PPI Netherlands Industry Ex Construction YoY	Eurostat
Belgium	Belgium PPI YoY	Belgium National Institute of Statistics	Norway	Norway PPI Domestic & Export Industry YoY New Classification	Statistics Norway
Canada	STCA Canada Industrial Product Price YoY (not seasonally adjusted)	Statistics Canada	Philippines	Philippines PPI Manufacturing YoY (2000=100)	National Statistics Office Philippines
China	China PPI YoY	China Economic Information Network	Portugal	Portugal Producer Prices Total (2008=100) YoY	Instituto Nacional de Estatistica Portugal
Denmark	Denmark Wholesale Prices YoY (2005=100)	Denmark Statistics	Singapore	IMF Singapore WPI	International Monetary Fund
Finland	Finland PPI (2005=100) YoY	Finnish Statistics Office	South Korea	South Korea PPI YoY (2005=100)	Bank of Korea
France	France PPI (2005=100) YoY	INSEE National Statistics Office of France	Spain	Spain PPI YoY (2005=100)	Instituto Nacional de Estadistica
Germany	Bundesbank Germany Producer Prices YoY (seasonally adjusted)	Deutsche Bundesbank	Sweden	Sweden Producers Prices YoY (2005=100)	Statistics Sweden
Greece	Eurostat PPI Greece Industry Ex Construction YoY	Eurostat	Switzerland	Producers Price Index YoY	Federal Statistics Office of Switzerland
Hong Kong	Hong Kong PPI All Manufacturing Industries YoY (2000=100)	Census & Statistics Department Hong Kong	Thailand	Thailand PPI All Products YoY (2005=100)	Commerce Ministry
Iceland	Iceland PPI Main Index YoY	Statistics Iceland	United Kingdom	UK PPI Manufactured Products YoY (not seasonally adjusted)	UK Office for National Statistics
India	India Wholesale Price All Commodities YoY	Press Information Bureau of India	United States	PPI By Processing Stage Finished Goods Total YoY (not seasonally adjusted)	U.S. Bureau of Labor Statistics
Indonesia	Indonesia Wholesale Prices YoY	Badan Pusat Statistik Indonesia			
Italy	Italy PPI Manufacturing YoY (2005=100)	The Italian National Institute of 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	Economy	Source	Economy	Source
Australia	Bloomberg Indices	Iceland	OECD	Singapore	World Bank
Austria	Eurostat	India	Bloomberg Indices	South Korea	Bloomberg Indices
Belgium	Eurostat	Indonesia	World Bank	Spain	Eurostat
Canada	Bloomberg Indices	Italy	Eurostat	Sweden	Eurostat
China	Bloomberg Indices	Japan	Bloomberg Indices	Switzerland	Bloomberg Indices
Denmark	Eurostat	Malaysia	Bloomberg Indices	Taiwan	Bloomberg Indices
Finland	Eurostat	Netherlands	Eurostat	Thailand	Bloomberg Indices
France	Eurostat	Norway	Bloomberg Indices	United Kingdom	Eurostat
Germany	Eurostat	Philippines	Bloomberg Indices	United States	U.S. Treasury
Greece	Eurostat	Portugal	Eurostat		
Hong Kong	Bloomberg Indices				

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	–

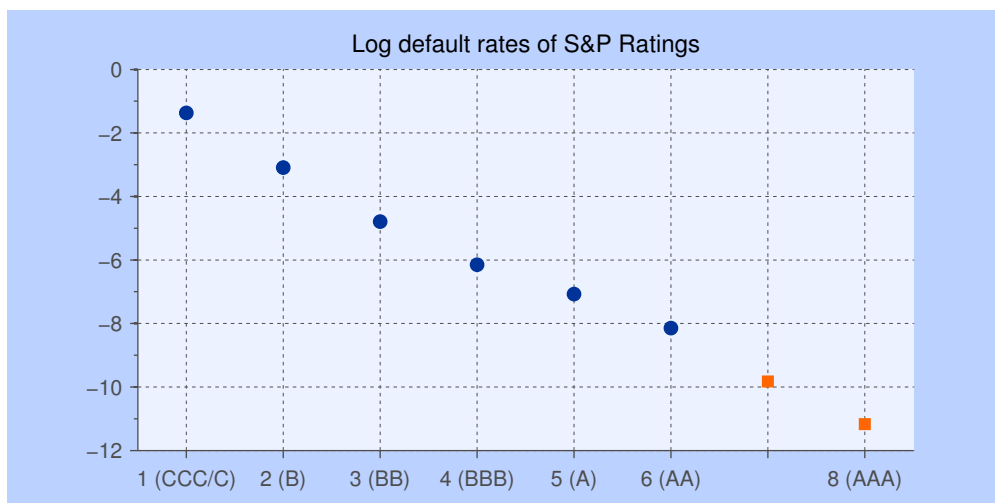
Computing the boundaries between different PDiR classes: The blue circles in the graph below indicate the logarithm of the ADR for S&P firms with ratings from AA down to CCC/C. There have been no defaults within one year for S&P rated AAA firms.

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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