
Quarterly Credit Report

Q3/2011

Volume 1, No 2



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 second issue covers the third 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 Rating Initiative

The QCR is a companion publication to the Global Credit Review, and both are produced as part of the Credit Rating 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.

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Asia-Pacific – developed economies

A Overview

With developed economies in the Asia-Pacific region being largely export-dependent, the current global slowdown resulted in a weakening business outlook for this region. In the third quarter, many developed economies in Asia-Pacific faced similar economic challenges including inflation and possible asset bubbles. Japan was a notable exception, as the country continued to deal with ongoing deflationary pressures.

During the last quarter, the central banks in these economies seemed ready to shift to a looser monetary policy in order to encourage domestic consumption, and to deal with reduced demand for exports. Nevertheless, the overheating problem for some countries such as Singapore persisted and pointed to a likely downturn.

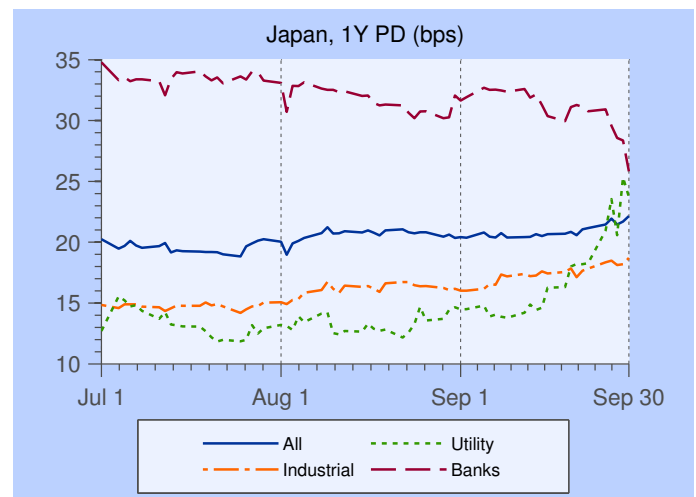
The credit outlook for firms in developed Asia-Pacific nations deteriorated, with the 1-year aggregate PD for Asia-Pacific developed economies showing a marked rise over the third quarter.



B Japan

Following a contraction in the first half of 2011, the Japanese economy showed positive signs in the third quarter as the country recovered from recent natural disasters. Supply chain disruptions eased, with production on track to recovery for many companies. Consumer sentiment and business sentiment improved, with larger manufacturing firms registering an optimistic outlook.^{1,2} In addition, capital expenditures by Japanese firms increased, partially due to post-earthquake reconstruction needs.³

During the third quarter, The Bank of Japan (BOJ) pursued an accommodative monetary policy by keeping interest rates low and continuing an asset purchase program aimed at stimulating the economy.⁴ Furthermore, Japanese firms continued to experience favorable conditions for debt issuance.³



On the other hand, as a perceived safe haven asset, the Japanese Yen continued to appreciate amid the ongoing Eurozone sovereign debt crisis. The strengthening Yen prompted the BOJ to again intervene in currency markets in August. The currency appreciation negatively affected Japan's price competitiveness,⁵ and also hurt those Japanese firms with foreign currency income. In addition, energy shortages in the wake of the Great East Japan Earthquake pushed up the cost of energy for Japanese firms, and caused ongoing production scale backs and delays.⁶

Although the change in CPI for Japan became positive,⁷ Japan's output gap was still negative,⁸ indicating a steady weakening of consumer demand, and that ongoing deflationary pressures remained.

Looking forward, Japan's export-dependent economy is likely to continue to suffer from a combination of stalling overseas demand, and a strengthening Yen.⁹ Japan's corporate spending, although on the rise, has been largely focused on reconstruction efforts. There is a lack of forward looking corporate investment,¹⁰ which is necessary to boost economic growth.

In addition, pressure is mounting on the Japanese government to address the large government debt burden and reduce ongoing budget deficits. A proposed consumption tax hike aimed at solving the government's fiscal woes^{11,12} is expected to further weaken consumer demand. On the other hand, government reconstruction commitments should provide stimulus to the economy.

Business conditions for Japanese firms are likely to be challenging, but Japanese firms maintained relatively stable credit profiles with some moderate deterioration. The aggregate 1-year PD for Japanese firms increased marginally over the third quarter.

B.1 Industrial and Utility Sector

Despite a recovery in supply chains,¹³ Japan's industrial sector is likely to experience further declines with revenue pressures from both within and outside the country. The surging Yen has already impacted the industrial sector as exports by Japanese firms grew less than expected in August.¹⁴ Additionally, it is likely that in the medium to long term, persistent deflationary pressures and a high unemployment rate, exacerbated by Japanese firms shifting production overseas,¹⁵ will decrease domestic revenues. As a result, the sector's 1-year aggregate PD increased slightly over the third quarter.

In the aftermath of the Great East Japan Earthquake the Japanese utility sector has switched to alternative energy sources, such as liquefied natural gas, to make up for the lost nuclear power capacity.¹⁶ The cost of these alternative energy sources are often higher and more volatile, increasing the cost burden for Japanese utility firms as they struggle to meet consumer demand. In addition, a compensation plan enacted by the Japanese Parliament in August¹⁷ may force Japanese utility companies to contribute to the huge compensation bills faced by Tokyo Electric Power Co. (TEPCO).¹⁸ Although details have not yet been finalized, it is expected that future costs will burden the entire Japanese utility industry. With the increased cost burdens, the Japanese utility sector's 1-year aggregate PD surged over the third quarter.

B.2 Banking sector

Amid continued deleveraging by Japanese consumers and businesses, lower demand for bank loans placed downward pressure on bank revenues, which have consistently declined during the last two years. In addition, Japanese small and medium enterprises (SME) reported lower earnings.¹⁹ With lending to Japanese SMEs accounting for almost 40% of Japanese banks' total assets, decreased SME earnings could potentially impair the quality of bank assets.

However, Japanese banks are expected to continue to enjoy favorable funding and liquidity conditions while the BOJ maintains current loose monetary policy.²⁰ Bank lending data for September showed an increase in corporate loan demand, due to post-earthquake reconstruction spending, pointing to a potential recovery in loan revenue for Japanese banks.

The net effect for the Japanese banking sector was a slight decrease in the 1-year aggregate PD during the third quarter.

C Australia

The Australian economy maintained momentum on the back of the ongoing mining boom, fueled by increasing natural resources demand from emerging economies. Australia's terms of trade maintained historic high growth, reaching 122.6 in June.²¹ The natural disaster that struck Queensland early this year proved to be only a temporary setback, with quarterly national GDP growth reaching 1.2% in the second quarter, compared to -0.9% in the previous quarter.²²

In the third quarter, promising economic indicators suggested that Australia was relatively isolated from ongoing turmoil in Europe, and that concerns about a slowdown in the Chinese economy might be overestimated. The momentum of the mining boom seemed to continue, with the two largest miners reporting further increases in production.²³ Overall corporate profits increased significantly, with a rise in the Westpac Leading Index over the third quarter pointing to an improved outlook for economic growth and business conditions.²⁴ However, sectoral divergence was present, with firms in non-mining related industries reporting less promising earnings.²⁵ Furthermore, the appreciation of the Australian dollar posed further challenges for export reliant firms.

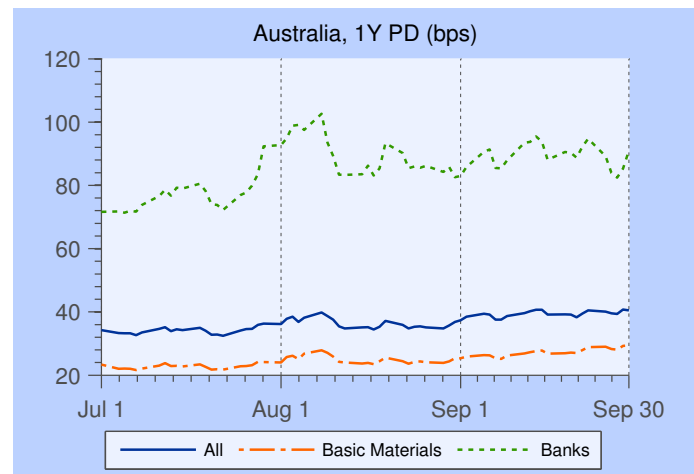
The funding environment for Australian companies continued to be favorable in the third quarter. High profitability in recent years allowed Australian businesses to supplement their financing needs with retained earnings. However, due to low consumer spending, cyclical consumer firms did not enjoy this advantage. In addition, Australian firms were able to capitalize on strong offshore investor demand for Australian corporate debt, with a smaller spread over government securities compared to companies in the Western Hemisphere.²⁶ Continued deleveraging also improved the financial position of Australian firms. The Australian benchmark interest rate was stable at 4.75% during the third quarter, after a series of interest rate hikes by the Reserve Bank of Australia (RBA).

Looking forward, a number of factors are creating uncertainty in business and credit conditions for Australian firms. A large slowdown in Chinese or Indian markets may reduce its natural resource exports, which is likely to impair a majority of Australian firms, as mining income provides support for many sectors in the Australian economy. Firms that depend on overseas markets for funding will be exposed to volatile market conditions. In addition, the recent passage of the Carbon Pollution Reduction Scheme may increase expenses faced by Australian firms.²⁷

Australian firms faced a less favorable credit outlook than during the previous quarter, with the aggregate 1-year PD for Australian firms rising marginally.

C.1 Basic Materials sector

A slowdown in Chinese and Indian demand is the largest risk facing the basic materials sector.²⁸ The RBA's Commodity Base Metals index showed a moderation in demand during the past three quarters. A resulting downward adjustment in commodities prices would further impair the sector's earnings. In light of this, the basic materials sector faced a weakening in credit conditions. Its 1-year aggregate PD increased slightly during the third quarter.



C.2 Banking sector

The capital positions of Australian banks were strong during the third quarter, with the four largest Australian banks each having a core tier 1 capital ratio of around 7%.²⁹ A marked growth in domestic deposits, which increased 10% in the first half of 2011, provided Australian banks with a solid funding base. Despite capital market volatility, access to domestic and offshore wholesale funding markets remained open, as debt issued by Australian banks remained popular with investors.³⁰ Recent legislation allowing Australian banks to sell covered bonds could further improve Australian banks' access to funding.³¹

However, risks remain for the Australian banking sector, as fierce competition threatens to squeeze profit margins.³² Australian households are becoming increasingly averse to the high levels of debt they previously maintained which, combined with consistently high interest rates, has dampened consumer demand for loans. Businesses are also sitting on large profits.³³ These factors suggest that loan demand is likely to remain subdued in the near future, posing a risk to the profitability of Australian banks.

Furthermore, despite the efforts by the Australian banks to reduce their reliance on offshore wholesale funding,³⁴ this funding structure is unlikely to change substantially in the near future.³⁵ As a result it is likely that after years of adequate funding access, Australian banks' funding capability remains vulnerable to the volatility of the global capital market. Global strains could increase the cost of funds for Australian banks.^{36,37}

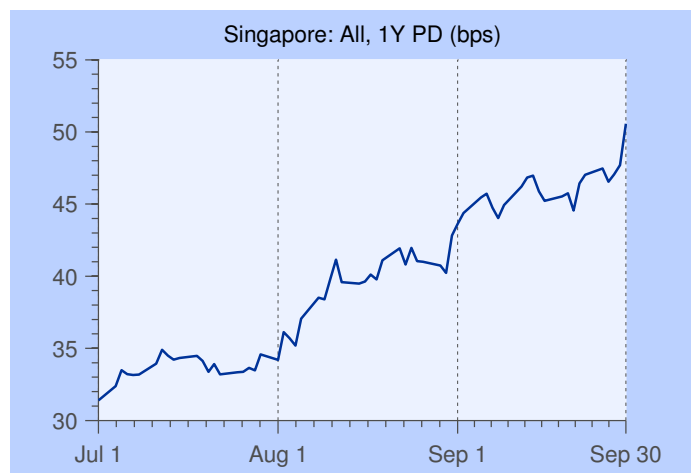
At the same time, housing affordability remained low, raising concerns that the property market bubble may finally be bursting.³⁸ Other negative signs recently emerged in the Australian property market, with Australian homeowners facing a fall in house prices and mortgage delinquencies rising slightly.^{39,40}

While Australian banks showed robust performance and continued to enjoy favorable conditions over the last quarter, significant risks remained. The credit outlook for the Australian banking sector, although relatively stable, showed signs of deterioration. The Australian banking sector's 1-year aggregate PD increased noticeably during the third quarter.

D Singapore

The third quarter GDP growth in Singapore was higher than projected, with the country narrowly avoiding a technical recession. However, for 2011, the Singaporean government has lowered its forecast for GDP growth to 5%, from a range of 5 to 6%. The central bank, the Monetary Authority of Singapore (MAS), recently eased its monetary policy for the first time since April 2009, citing concerns regarding continued economic fragility in the Western Hemisphere, and a potential economic slowdown in China.⁴¹ Reflecting the downbeat earnings outlook for Singapore's

export-dependent economy due to faltering overseas demand, the aggregate 1-year PD of Singapore firms exhibited a sharp rise during the third quarter.



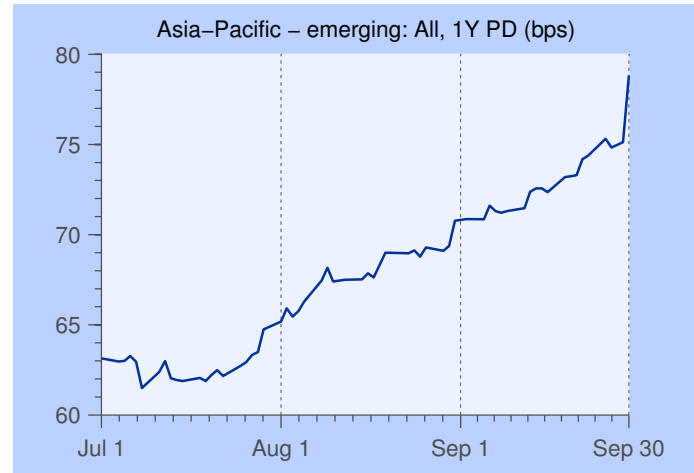
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Asia-Pacific – emerging economies

A Overview

Amid deepening financial and economic woes in Western Europe, emerging Asian economies have become increasingly vulnerable, due to a dependence on developed economies. A decline in export orders from Western economies caused a general deterioration in the credit outlook for the region. Highly export-reliant economies such as China, where private consumption accounts for a relatively small proportion of GDP are more affected than economies such as India and Indonesia, where private consumption plays a more significant role.

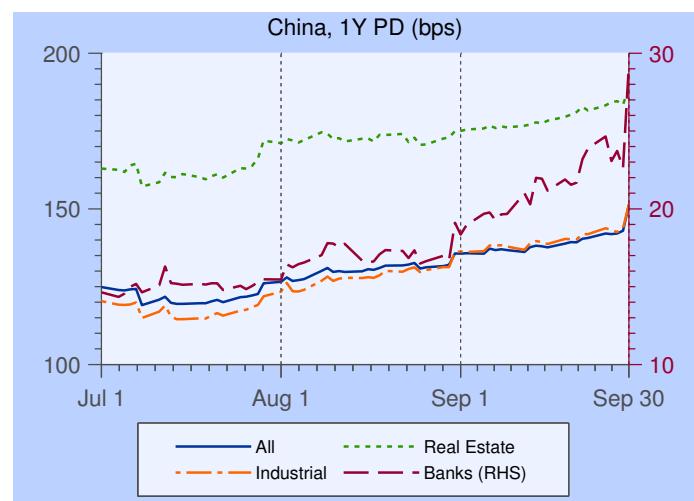


The overall credit outlook across emerging Asian economies experienced a decline, with the 1-year aggregate PD showing a marked increase during the third quarter.

B China

China enjoyed a strong rebound from the 2008-09 global financial crisis, bolstering its position as the economic powerhouse of the global economy. However, with recent global and domestic developments on the economic and financial front, vulnerabilities in the Chinese economy emerged, raising concerns over future economic growth.⁴²

Although the Chinese government promised to foster a transition from a production-oriented economy to a consumption-oriented economy, China remained reliant on exports to developed markets, and its September export figures showed a moderate decline.⁴³



Looking ahead, credit conditions in China remain uncertain. The People's Bank of China (PBOC) will face the challenges of countering a slowdown and controlling rising inflation. These two divergent pressures dictate a delicate balance in monetary policy. The Chinese government has pledged to maintain social stability, so officials may prioritize taming high inflation over encouraging economic growth.^{44,45}

As a part of this balancing act, the Chinese government unveiled a number of measures to avert the potential impact of monetary tightening on small and medium-sized enterprises (SME). Tax breaks and special lending should help alleviate current funding and profit pressures faced by many SMEs, which supply over 80% of urban employment in China.⁴⁶

Reflecting overall deterioration in the credit outlook of Chinese firms, the 1-year aggregate PD for Chinese firms increased noticeably during the third quarter.

B.1 Banking sector

Chinese banks are largely domestic-oriented, operating in a protective environment where lending and deposit rates are heavily regulated.⁴⁷ Bank balance sheets are healthy, with the weighted average capital adequacy ratio of Chinese's banks above 11%, as of March 2011. In addition, a high domestic savings rate provides Chinese banks with a large, stable funding base. Recent stress testing by the Chinese banking regulator revealed that Chinese banks are able to withstand a 50% decline in domestic property prices.^{48,49}

Nevertheless, there are signs that the protective environment is eroding. China's monetary tightening has led to intensifying competition among Chinese banks for customer deposits, and has encouraged banks to offer a new range of high-yielding wealth management products.⁵⁰ Considerable risks remain in the Chinese banking system, mainly arising from large exposures to local governments which are highly exposed to the property market bubble. As local government loans are assigned low risk levels during capital ratio calculations, the ratios may be overly optimistic, and may ultimately prove inadequate in protecting against large potential losses.⁵¹ This situation parallels the sovereign exposures in Eurozone banks.

Another risk facing the Chinese banking sector stems from a recent increase in shadow banking activities. While the Chinese central bank restrains credit growth, banks have increasingly arranged so-called entrusted loans to facilitate lending activities between firms. These off-balance sheet loans do not add direct credit risk to banks, but banks may still be exposed if the default of an entrusted loan triggers a chain of defaults.⁵²

The future credit profiles of Chinese banks may experience some weakening as a result of the above mentioned challenges. The 1-year aggregate PD for Chinese banks, showed a slight increase during the third quarter.

B.2 Real estate sector

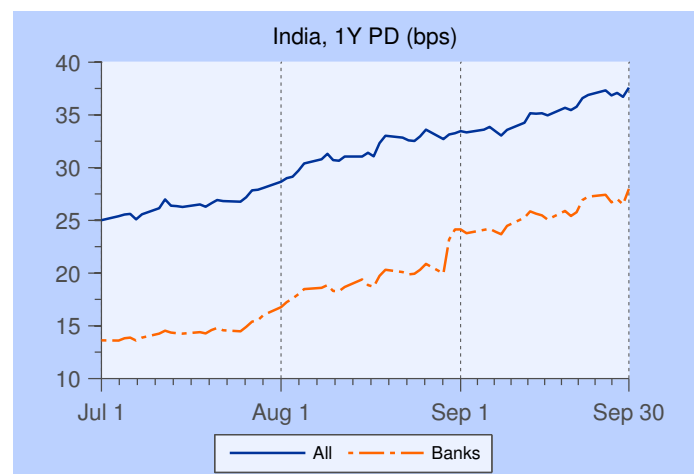
Due to the Chinese government's further restrictions on lending to real estate developers, the future credit conditions for China's real estate sector are expected to remain unfavorable. The sector is also facing government measures to curb speculative property buying, which would likely see property prices to further decline.⁵³

Under pressures from both declining credit availability and declining property prices, the credit outlook of the Chinese real estate sector worsened in the third quarter, with a noticeable increase in the 1-year aggregate PD.

C India

The Indian economy witnessed a robust recovery from the 2008-09 global financial crisis, with a respectable growth rate of over 8% in 2010.⁵⁴ This was largely due to robust domestic demand, which provided a cushion for the economy against the current global economic downturn.

However, soaring inflation remains a significant challenge.⁵⁵ The Reserve Bank of India (RBI), raised the benchmark interest rate a total of twelve times since October 2010 in an effort to tame inflation. The subsequent higher cost of credit contributed to a reduction in economic activity in the third quarter. The September service PMI signaled a contraction for the first time



since April 2009, and the September manufacturing PMI signaled a near contraction.⁵⁶ India's GDP growth, although high at 8%, is forecasted to remain subdued for the period 2011 to 2012.⁵⁷

India's fiscal consolidations could also prove a drag on India's economy as the government started to curb spending.⁵⁸ However, the overall effect is yet to be seen as the Indian government targets a \$1tr infrastructure investment as part of its 11th five year plan, which begins in 2012.⁵⁹

The deterioration in Indian credit and business outlooks is reflected in the 1-year aggregate PD which increased noticeably during the third quarter.

Banking sector

Indian banks enjoyed stable retail funding costs, thanks to the RBI's regulation of the savings bank deposit rates that removes the competitive pressures to raise rates.⁶⁰ Indian banks' common equity stood at 8.38% as of December 2010,⁶¹ leading the RBI to anticipate a smooth transition to Basel III for Indian banks.⁶²

However, risks remain for Indian banks, as rising interest rates may increase non-performing loan ratios⁶³. Furthermore, the RBI has overlooked the lax accounting treatments that lenders use to record bad loans, and allows low balance sheet provisions for non-performing loans.⁶⁴ Hence, the current high capital ratios, might provide a false sense of security.

The rising interest rates also contributed to a decline in demand for domestic corporate credit,⁶⁵ with Indian firms increasingly turning to the overseas markets for financing.⁶⁶ On the other hand, India's prevalent negative real interest rates⁶⁷ should lead to a continuation of resilient credit growth.⁶⁸

The worsening credit outlook for Indian banks is reflected in the sharply higher 1-year aggregate PD.

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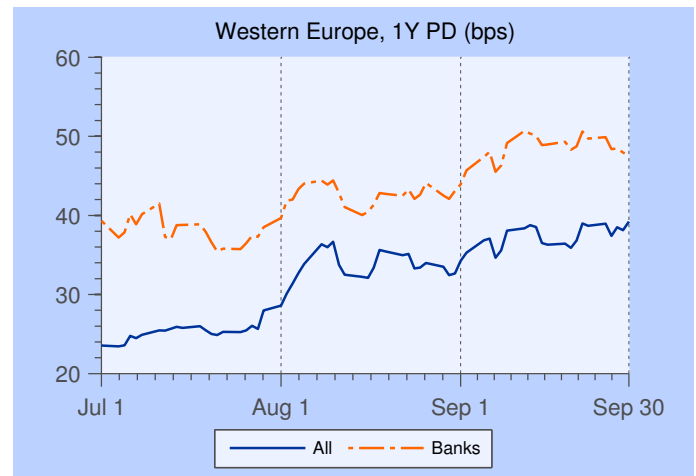
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Western Europe

A Overview

The third quarter of 2011 was difficult for European firms as they continued to struggle with a worsening sovereign debt crisis and concerns about financial contagion. Efforts by the ECB and national governments to contain debt problems have not appeased financial markets, as debt-stricken countries' borrowing costs reached record highs, hampering debt-relief efforts.^{69,70} The Western European economy was almost stagnant in the second quarter, and suffered from widespread fiscal consolidation, stubborn inflation and rising unemployment.^{71,72}



European firms were confronted with a challenging credit environment, as Eurozone banks reduced commercial lending due to large exposures to debt-laden economies. The Bank of England also showed a further reduction in corporate lending to UK businesses since the last quarter of 2010.⁷³

Major market indices reflected deteriorating market conditions in Europe, as the IFO economic climate indicator, the PMI⁷⁴ and output growth all fell to levels not seen since late 2009.⁷⁵ This has further eroded business and consumer confidence, which has been on a continuous decline since early this year. The economic sentiment indicator (ESI) reading for both the Eurozone and the European Union has declined since June.⁷⁶

During the third quarter of 2011, firms in Western Europe faced increasingly adverse market conditions. The credit outlook for European firms was grim, as credit conditions continued to be shrouded by uncertainty regarding the Eurozone debt crisis, the future direction of ECB monetary policy, and the prospect of a global economic slowdown. Reflecting this, the aggregate 1-year PD for Western European firms increased considerably during the third quarter.

B Banking sector

Amid the economic and financial turmoil that has been battering Eurozone banks, the region's bank stock index tumbled nearly 30% since early this year, a fall comparable to the one recorded during the 2008-09 financial crisis.⁷⁷ While the problems confronting European banks originated from substantial exposure to Greek sovereign debt, associated debt write downs and market conditions escalated the scale and depth of current bank difficulties. As European banks' collective exposure to Southern European sovereign debts was substantial, price declines in these assets had weakened the balance sheets of banks. As of the end of the third quarter, the stance of EU financial bodies was a write-down on Greek bonds of up to 50%, as a previously proposed write-down of 21% was deemed insufficient.⁷⁸ EBA stress tests in early July estimated European banks could require up to €80bn of fresh capital, with only 8 out of the 90 tested banks having a capital deficit.⁷⁹ However, these tests did not include a Greek default scenario, and were quickly dismissed by investors. An IMF assessment conducted in September estimated European banks could face a capital shortage of almost €200bn in the event of a large decline in the price of Southern European sovereign bonds.⁸⁰

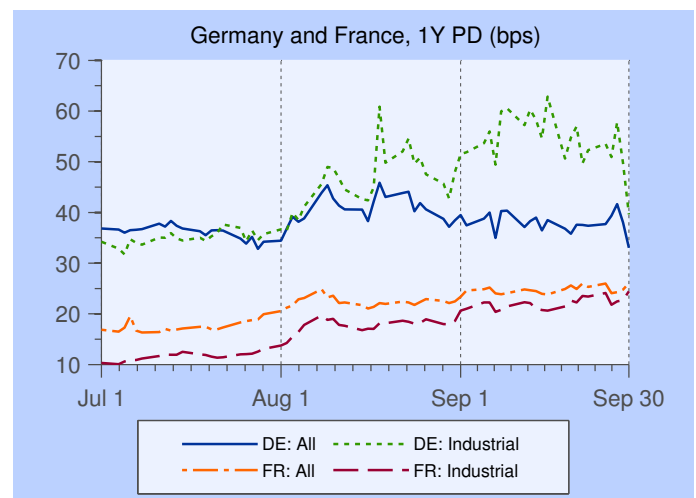
The combination of a sluggish European economy and a slowdown in merger and acquisition deals posed further challenges for banking activities within the Eurozone, as lower advisory fees⁸¹ and a rise in non-performing loans crippled bank earnings.⁸² Further pressure was placed on bank profit margins when the ECB increased the marginal lending rate 25bps to 2.25% on July 13.

In addition, European banks faced reductions in their credit lines and increased funding costs amid growing concern in the interbank and bond markets over sovereign debt problems. For example, Italian banks have been facing a liquidity squeeze as concerns over government solvency increased.⁸³ Banks in non-peripheral economies also suffered, such as French banks that reportedly considered asset sales to solve funding problems.⁸⁴ Furthermore, the low volumes in unsecured bond markets highlighted the increased cost in funding faced by European banks.⁸⁵ An erosion in the deposit base and reduction of funds from US money market funds, further aggravated funding problems for many Eurozone banks, including large French and German institutions.⁸⁶

At the same time, UK banks seem relatively resilient to problems in continental Europe and maintained sound liquidity and funding positions. The Bank of England attributes their better liquidity and funding conditions to strong debt issuances and deposit growth.⁸⁷ Despite ECB and government measures to support Eurozone banks, including unlimited euro liquidity and limited US dollar liquidity,^{88,89} confidence in European banks faded. CDS spreads soared on concerns about the creditworthiness of banks within the monetary union. Correspondingly, the aggregate 1-year PD for European banks rose noticeably during the third quarter.

C Germany and France

During the third quarter, business conditions for German firms remained favorable. Demand remained strong, owing mainly to Germany's strong labor market, with demand from emerging markets providing support for German exports. Credit availability for German firms remained abundant during the third quarter.⁹⁰ Nonetheless, due to a high dependence on revenues from struggling developed economies, the credit outlook for German firms deteriorated. German firms' 1-year PD, although not rising significantly, exhibited some fluctuation during the third quarter.



Even though the debt to GDP ratio of France is comparable to that of Germany,⁹¹ higher exposures to Southern European debt increased investor fears over a potential contagion to the country. This fear was clearly reflected in the soaring spread between French and German 10-year sovereign debt yields, and the negative watch that was put on France's AAA rating.⁹²

In addition, French business and consumer confidence declined considerably in the third quarter, reaching its lowest level since 2009. Low confidence in the economy, combined with a sharp fall in the French PMI, led to a near standstill in economic growth.⁹³ Furthermore, the French government committed to fiscal consolidation measures, placing further strains on France's fragile economic recovery.

The credit outlook for French business is highly dependent on debt crisis developments, and in particular the effect on consumer demand. The 1-year PD for French firms showed some noticeable increase during the third quarter.

C.1 Industrial sector

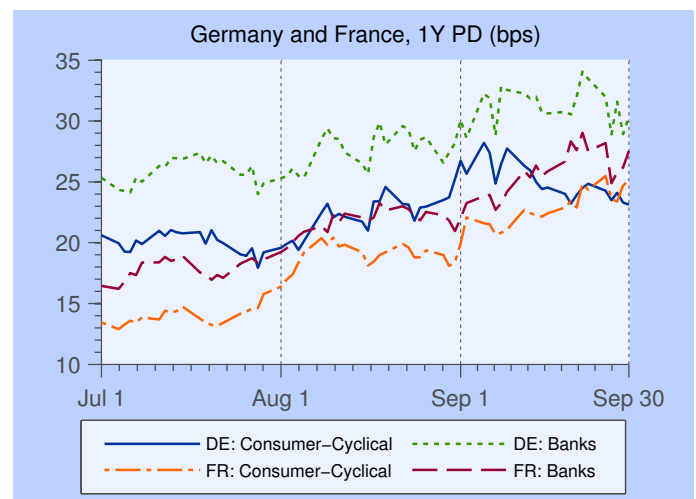
The September PMI for Germany pointed to sluggishness in the economy, mainly stemming from weak orders by manufacturing firms. In particular, German export orders suffered the fastest decline in 27 months⁹⁴ due to economic problems faced by its major trading partners.⁹⁵ This undermined the overall credit outlook for Germany's industrial sector, although future credit conditions are likely to remain supportive due to banks' continuing liquidity support.

Gloomy revenue prospects overshadowed the overall credit outlook for Germany's industrial sector. The 1-year aggregate PD for the German industrial sector was volatile with an upward trend during the third quarter.

French industrial firms faced increasing production costs during the third quarter,⁹⁶ with the PMI contraction compounding sectoral difficulties.⁹³ In addition, the manufacturing sector experienced a deterioration in credit conditions, as French banks reduced corporate lending.⁹⁷ The 1-year PD for the French industrial sector increased steadily during the third quarter.

C.2 Consumer-Cyclical sector

The consumer-cyclical sector in both Germany and France experienced deteriorating credit conditions, as these sectors are very sensitive to consumer confidence and spending. In spite of this, the credit outlook for German firms in this sector was comparatively more stable than their French counterparts, due to the relative resilience of the German labor market and relatively higher consumer confidence. The 1-year PD for German consumer-cyclical sector displayed a moderate upward trend. In contrast, the 1-year PD for the French consumer-cyclical sector showed a larger increase over the same period.[†]



C.3 Banking sector

Despite volatile markets, German banks have experienced ample funding availability due to German depositors' solid confidence in the banking sector. Deposits at German banks continued to increase throughout the first half of 2011, with short-term time deposits exhibiting a strong upward trend.⁹⁸

So far, the European debt crisis did not have a noticeable impact on German lending activities. While governmental lending by German banks declined, lending to the domestic private sector rose. Credit standards remained broadly unchanged, while private sector demand for loans increased.⁹⁸

German banks have much higher exposures to Italian and Spanish sovereign debt relative to their holdings of Greek sovereign debt, and would be significantly affected if the crisis were to deepen in Italy or Spain.⁹⁹ Consequently, while confidence in the robustness of the German economy is likely to support the banking sector, the credit outlook for German banks deteriorated during the third quarter. Meanwhile, EU proposals requiring write-downs on Greek debt above the aforementioned 50% level will further impair the balance sheets of German banks. German banks' 1-year PD showed a clear upward trend during the third quarter.

[†]One company, Outside Living, was excluded from the aggregate for the French consumer-cyclical sector due to data issues in that company affecting the aggregate PD.

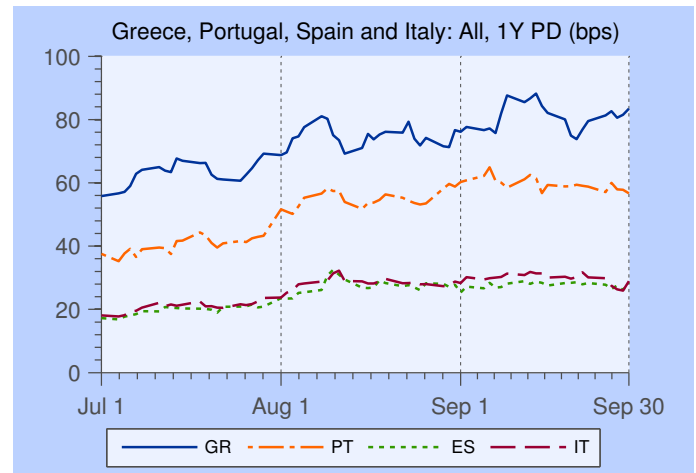
Compared to German banks, the sovereign debt crisis had a bigger effect on French banks. Moody's downgraded a number of French banks due to large exposures to indebted Southern European countries.¹⁰⁰ A high reliance on short-term wholesale funding highlights the current vulnerability of French banks.¹⁰¹ Continued funding strains forced a number of French banks into asset sales.^{102,103}

During the third quarter, the credit outlook for French banks was bleak. The 1-year PD for French banks rose by a substantial amount during the third quarter.

D Greece, Portugal, Spain and Italy

At the epicenter of the Eurozone debt crisis, Greece, Portugal, Spain and Italy continued to battle negative market sentiment and economic problems. There have been concerns that a weakened economy and government budgetary challenges are forming a vicious circle in these countries.

Greek banks continued to deleverage their balance sheets in the third quarter, causing further contraction in private sector credit supply.¹⁰⁴ Strong opposition to government spending cuts is making it difficult for the Greek government to implement fiscal reforms. This could drastically increase the length of time needed for Greece to solve its debt crisis. The aggregate 1-year PD for Greek firms increased by a large amount during the third quarter.



Positive signs of export recovery in Portugal during the first half of 2011¹⁰⁵ were overshadowed by a tightening in credit standards for Portuguese firms.¹⁰⁶ The aggregate 1-year PD for Portuguese firms was on a steady upward trend during the third quarter. It was clear that the sovereign debt crisis had spread to Italy and Spain, Europe's third and fifth largest economies, respectively. Investor fears of contagion pushed the government debt yields for Spain and Italy to record highs, threatening to weaken debt reduction efforts. Spain's debt rating was put under review for a downgrade.

With Spain's unpromising economic outlook and issues facing its regional governments, its efforts to improve public finances could remain ineffective.¹⁰⁷ Spain's debt to GDP ratio is forecasted to reach at least 68% of GDP by the end of 2011. Separately, continuing weakness in the Spanish housing market led to record levels of bad debt in July.^{108,109} Political wrangling prevented the implementation of Italian austerity measures, which are expected to compound Italy's sluggish economic growth.¹¹⁰ Similar to Spain, Italian efforts to reduce the country's debt-to-GDP ratio from the current level of 120% of GDP could also be insufficient. Furthermore, borrowing costs faced by the Italian government remain vulnerable to negative market sentiment, with Italian debt accounting for a quarter of European sovereign issuance.

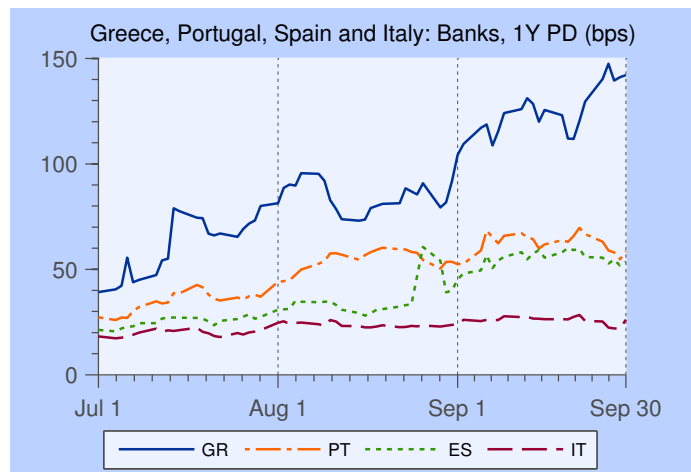
Against these backdrops, firms in Spain and Italy have been facing difficult business and credit conditions that are intertwined with ongoing fiscal problems. Given the uncertainty of the debt crisis, the aggregate 1-year PD for both Spanish and Italian firms increased marginally during the third quarter.

Banking sector

Large holdings of sovereign debt have placed severe pressure on the balance sheets of Southern European banks. Asset portfolios are at severe risk of further deterioration due to sovereign debt problems. The problems facing banks in Southern Europe are so severe that bank nationalizations have been proposed in Greece and Spain to save struggling banks from potential failure,^{111,112} as EU leaders were finalizing EU-wide requirements for bank recapitalization at the end of the third quarter.¹¹³

Presently, the ECB only allows healthy sovereign debt to be used as eligible collateral for repo transactions, linking the funding liquidity of Southern European banks to their sovereign debt holdings.¹¹⁴ In addition, the funding market stresses have been weighing on the funding liquidity of Southern European banks. Hence, a prolonged crisis is expected to worsen the funding problems for the banks, thereby distressing the bank's future credit profiles.

The aggregate 1-year PD for Greek, Portuguese, Italian and Spanish banks exhibited an upward trend during the third quarter, with Greek banks having the biggest increase in PD. This coincided with increasing uncertainty regarding indebted Southern European nations, highlighting the link between bank default risk and sovereign debt problems.



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⁷⁰10 y government bond yields for Italy, Spain and Greece, Source: Bloomberg Indices.

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⁷⁷Source: [Stoxx](#), www.stoxx.com

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⁷⁹July 18, 2011, [EU Bank Stress Tests Missing Sovereign Defaults Fail to Convince Analysts](#), Bloomberg.

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⁸⁴September 15, 2011, [Money Funds' Cuts to French Banks Could Force Sales](#), Bloomberg.

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- ⁸⁶September 14, 2011, [Deposit Flight at European Banks Means Risk Piling Up at ECB](#), Bloomberg.
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- ⁸⁸August 26, 2011, [Stabilise but bank credit risk reflects strains](#), Reuters.
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- ⁹²October 19, 2011, [France pledges to defend triple A rating](#), Financial Times.
- ⁹³September 22, 2011, [Markit Flash France PMI](#), Markit.
- ⁹⁴September 22, 2011, [Markit Flash Germany PMI](#), Markit.
- ⁹⁵Source: [Statistisches Bundesamt Deutschland](#), www.destatis.de
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- ⁹⁷September 18, 2011, [Bank woes could stymie France's recovery](#), Reuters.
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- ⁹⁹August, 2010, [The EU Stress Test and Sovereign Debt Exposures](#), OECD, www.oecd.org
- ¹⁰⁰September 14, 2011, [Moody's downgrades top French banks](#), Channel News Asia.
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- ¹⁰²September 12,2011, [SocGen ditches assets as French bank pressure rises](#), Reuters.
- ¹⁰³September 14, 2011, [BNP Paribas to sell 70 bln eur in risk-weighted assets](#), Reuters.
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North America

A Overview

Amid signs of economic slowdown, business conditions have been challenging for North American firms. Despite some positive news on export growth and payroll improvement at the end of the third quarter, ^{115,116} the US economy, which is highly dependent on domestic consumption, is likely to remain sluggish. Negative consumer sentiment, high unemployment and a shaky housing market contributed to an economic malaise, fueling concerns about a double-dip recession. ¹¹⁷

In Canada, a decline in commodity prices and a reduction in exports to the US contributed to slower economic growth. Canada's dependence on the US put Canada's economic recovery on a fragile footing.

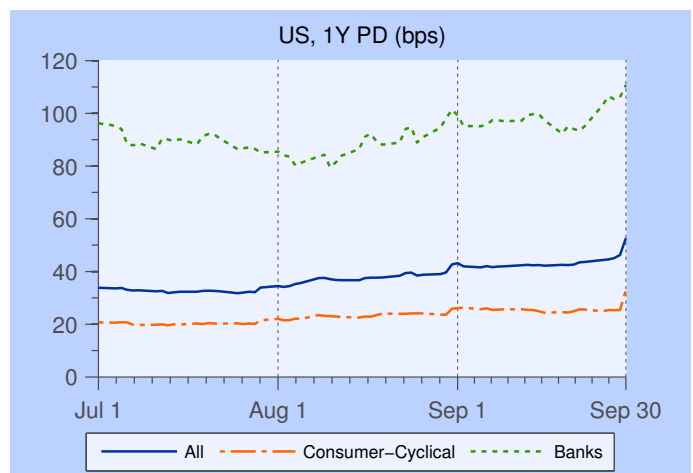
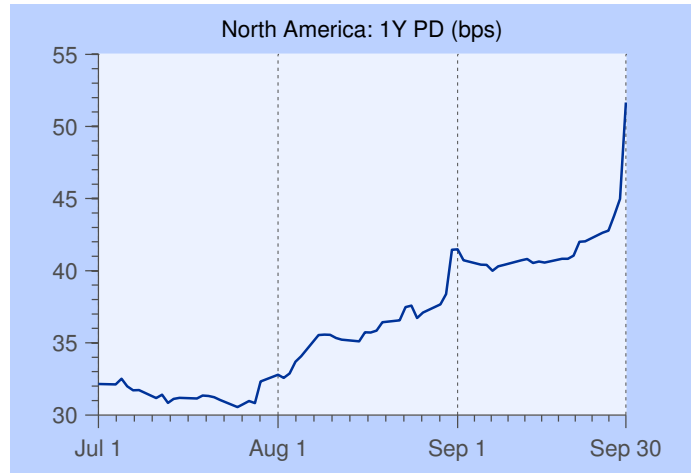
Despite the threat of contagion from continental Europe, financial conditions for North American firms look more favorable than for Europe. Increasing concern over Eurozone debt problems stimulated demand for North American government securities, ¹¹⁸ which in turn supported a low commercial lending rate. Despite the threat of a US sovereign default and the associated credit rating downgrade by S&P in early August, ¹¹⁹ 10-year US treasury yields decreased in the third quarter with yields falling below 2%, reflecting demand for traditional safe-haven investments. ¹²⁰ Canada's comparatively low public debt to GDP ratio, combined with a strong economic recovery since mid-2009, ¹²¹ increased the attractiveness of Canadian-issued securities as a safe-haven for investors. The flight to quality also positively affected investments in Canadian sovereign bonds. ¹²²

The persistent economic weakness resulted in a deterioration in the credit profiles of North American firms. The 1-year PD for firms in the region increased significantly during the third quarter.

B US

After a modest recovery in 2010, the US economy grew only 0.4% in the first quarter and 1.3% during the second quarter, which is less than previous estimates and the quarterly growth rates recorded in 2010. ¹²³ Although the utilization of industrial capacity improved from its lowest level recorded in 2009, it remained slightly lower than its historic average between 1972 and 2010, ¹²⁴ This low level is a likely consequence of the subdued consumer demand.

A number of different factors created mixed credit conditions for US firms during the third



quarter. The Federal Reserve continued its loose monetary policy. Yields in highly-rated corporate debt and commercial paper markets remained low, in comparison with historic levels.¹²⁵ In contrast, signs of stress emerged in the US corporate bond market,¹²⁶ as securities issuances by US corporations declined in the third quarter. In particular, the issuance of junk bonds experienced a sharp fall during the third quarter.¹²⁷

The US housing market continued to decline in the third quarter,¹²⁸ with a continued fall in house prices and a large number of foreclosures. Many home owners struggling with repayments have been prevented from refinancing due to technicalities,¹²⁹ impeding a revival in consumer demand.

While expansionary monetary policy is likely to provide support for US firms, the corporate environment is still confronted with deteriorating investor sentiment, further weak consumer demand, and a dysfunctional political system. In addition, the ongoing economic and financial turmoil in Europe, the largest US trading partner, may further hamper US export revenues.

Reflecting these risks, the aggregate 1-year PD for US firms increased slightly during the third quarter.

B.1 Consumer-cyclical sector

Low interest rates and ample credit supply stimulated consumer spending on durable goods, particularly in the automobile industry.¹³⁰ However, US household debt ratios continued to decline throughout the third quarter, and this deleveraging trend is likely to continue in the future.^{131,132} Furthermore, despite positive September payroll results, the US unemployment rate remained above 9%. The above factors combined with a shaky housing market, make a protracted depression in consumer demand highly likely, with the consumer-cyclical sector facing poor revenue outlooks. In view of this, firms in the US consumer-cyclical sector faced a weakening in credit conditions, with the aggregate 1-year PD increasing during the third quarter.

B.2 Banking sector

US banks enjoyed a relatively favorable funding environment, compared with European counterparts who are grappling with funding problems. While investor risk aversion reduced the liquidity of bonds issued by US banks, overall funding, especially short-term debt, remained relatively robust.¹³³ The Fed fund effective rate remained consistently low throughout the third quarter, indicating ongoing liquidity in the inter-bank lending market. However, US banks have significant balance sheet exposures to Eurozone countries,¹³⁴ increasing uncertainty surrounding the stability of US banks.

In addition, during the third quarter a number of US banks were confronted with lawsuits regarding alleged foreclosure malpractices. Fannie Mac and Freddie Mac sued a number of US banks for losses experienced on mortgage packages bought before the subprime mortgage crisis.¹³⁵ Resulting settlements could impose significant costs on US banks.

Profits reported by a number of US banks in the third quarter were largely made up of accounting gains on company issued debt,¹³⁶ highlighting the fragility of the US banking sector. A future ban on bank proprietary trading and a decrease in state support, under the Dodd-Frank Act, may reduce bank profitability and increase regulatory oversight.¹³⁷ Operation Twist may further reduce bank revenues, as profit margins are expected to narrow when open market operations lower the long term lending rate and increase short term borrowing rates.¹³⁸ Consumer credit demand is likely to remain weak, given ongoing structural problems.

An expected decline in the profit margins of US banks, combined with spillover effects from continental Europe, has caused some deterioration in the credit outlook of US banks, with the aggregate 1-year PD for US banks increasing gradually during the third quarter,

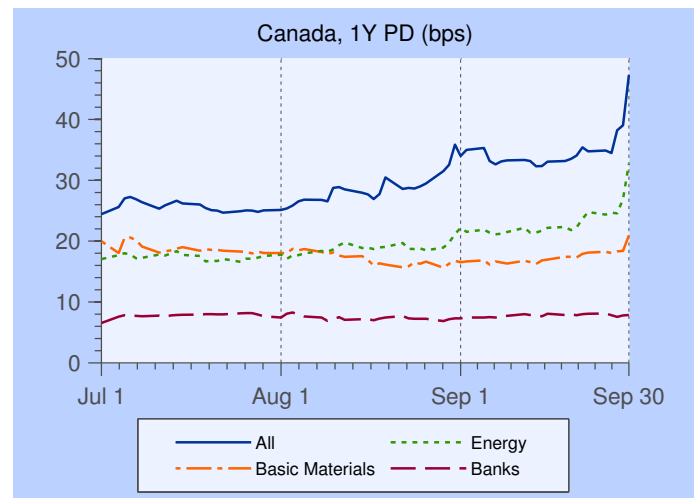
C Canada

Canadian firms have experienced ample credit availability; a survey published by the Bank of Canada highlighted an easing in domestic credit conditions during the second quarter of 2011.¹³⁹

A gradual global economic slowdown has highlighted the vulnerability of Canada's export-reliant economy. The country experienced a 0.1% decline in GDP in the second quarter, and a 2.1% contraction in export volume, as growth in US and European economies slowed.¹⁴⁰

Proposed cuts in government spending, combined with tax increases, could reduce much-needed consumer spending by lowering disposable income levels.¹⁴¹ Signs of a property bubble have emerged, creating concern among lenders and households, as Canadian properties have been estimated to be 25% overvalued.¹⁴²

The overall credit outlook for Canadian firms is gloomy. The 1-year aggregate PD for the Canadian firms rose sharply during the third quarter.



C.1 Basic Materials and Energy

Falling commodity prices in the third quarter dampened revenue prospects for firms in the basic materials sector. Delays in US approval of a crucial pipeline, a key part of plans to expand oil sands exports, created concern over the future of energy exports.¹⁴³ Reduced demand for commodities due to a gradual economic slowdown caused a deterioration in the credit profiles of firms in the basic materials and energy sectors. The 1-year aggregate PD for firms in the basic material sector increased marginally. The 1-year PD for the energy sector increased gradually and exhibited a clear upward movement towards the end of the quarter.[†]

C.2 Banks

Canadian banks are insulated from embattled Eurozone countries due to strong capital ratios, diversified revenue streams, and conservative investment practices.¹⁴⁴ Business credit demand remained strong during the third quarter and Canadian banks experienced strong deposit growth.¹⁴⁵ However, risks remain for Canadian banks, in particular a potentially overvalued housing market, as mortgages make up a considerable proportion of Canadian banks total assets.¹⁴⁶ The 1-year aggregate PD for Canadian banks increased while also showing strong volatility during the third quarter.

¹³⁹September 8, 2011, [U.S. Exports Rise to Record as Trade Deficit Shrinks](#), The New York Times.

¹³⁶October 7, 2011, [Snap analysis: Payroll improvement eases recession risks](#), Reuters.

¹³⁷August 12, 2011, [U.S. Consumer Confidence Drops to Three-Decade Low Amid Economic Headwinds](#), Bloomberg.

¹³⁸October 7, 2011, [After a Rating Downgrade U.S. Treasuries Turn a Profit](#), The New York Times.

¹³⁹August 5, 2011, [United States loses AAA credit rating from S&P](#), Reuters.

[†]One company, Compton Petroleum, was excluded from the aggregate for the Energy sector due to data issues in that company affecting the aggregate PD.

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- ¹³⁵September 7, 2011, [U.S. sues big banks over mortgage losses](#), Market Watch.
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- ¹³⁷2011, [The Impact of the Financial Reform Act on Banks and Other Financial Institutions](#), McGladrey & Pullen, mcgladrey.com
- ¹³⁸September 20, 2011, [Federal Reserve launches Operation Twist](#), CNNMoney.
- ¹³⁹July 2011, [Monetary Policy Report](#), Bank of Canada, www.bankofcanada.ca
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- ¹⁴¹September 29, 2011, [UPDATE: Canada's Budget Watchdog Warns Fiscal Structure "Not Sustainable"](#), The Wall Street Journal.
- ¹⁴²June 29, 2011, [Canada's 'housing bubble' deemed close to bursting](#), CBC News.
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- ¹⁴⁴June 28, 2011, [Canadian Banks: Exposure to Sovereign Debt](#), ScotiaMcLeod, www.maileyrogers.com
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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 July 6, 2011, using data up to June 30. 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 Q1 and Q2 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.

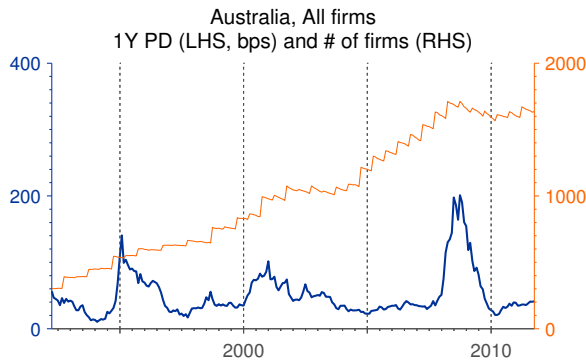
Appendix B gives 1-year aggregate PD by the four regions of Asia-Pacific developed, Asia-Pacific emerging, Western Europe and North America. The top two graphs of each regions show the time series of the distribution of Probability of Default implied Ratings (PDiR). The PDiR are described in the last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

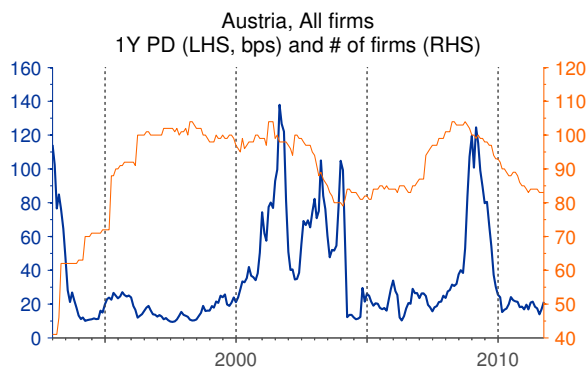
Appendix C provides common macroeconomic, corporate credit and sovereign risk indicators for each economy along with the 1-year aggregate PD for financial and non-financial firms. The graphs on the left give historical context to the values, and the table on the right give the data from the previous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

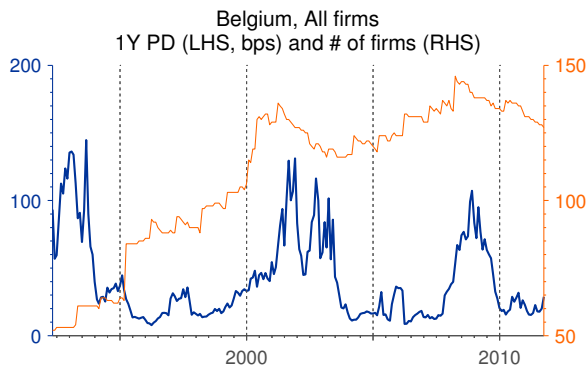
A PD by economies



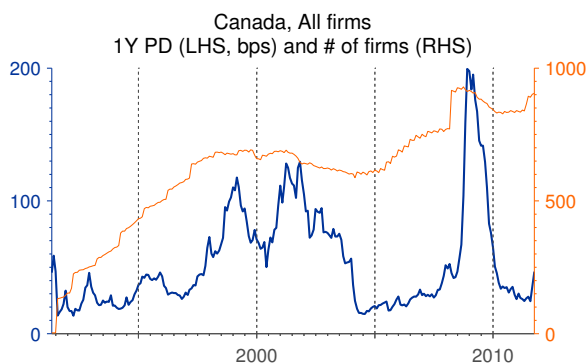
Australia		2011Q2		2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	161	43.4	69.4	58.6	101.1	15.2	59.9
Basic Materials	664	22.7	45.2	29.0	54.9	6.4	24.9
Communications	86	39.0	60.5	50.5	75.1	11.5	53.2
Consumer Cyclical	87	42.0	73.9	54.7	86.9	12.7	34.7
Consumer Non-cyclical	204	43.5	126.9	47.4	118.0	3.9	60.6
Diversified	8	13.6	15.9	16.1	22.0	2.5	8.0
Energy	205	34.7	82.7	35.8	58.6	1.2	44.0
Industrial	133	41.3	60.0	49.2	65.7	7.9	28.8
Technology	50	66.0	100.2	69.4	107.7	3.4	31.6
Utilities	10	309.0	941.0	218.1	626.6	-90.9	315.4



Austria		2011Q2		2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	24	11.3	11.1	21.2	17.2	9.9	10.6
Basic Materials	4	2.7	1.1	7.7	7.0	5.0	7.5
Communications	4	5.2	2.9	10.4	5.8	5.2	3.4
Consumer Cyclical	12	8.2	7.5	20.7	20.3	12.5	14.7
Consumer Non-cyclical	8	25.1	28.5	32.7	50.6	7.6	23.9
Energy	4	2.9	0.9	8.6	2.9	5.7	2.4
Industrial	18	11.8	19.4	24.3	36.4	12.4	18.0
Technology	6	31.7	33.3	31.9	33.4	0.2	5.2
Utilities	3	2.6	0.9	6.2	1.4	3.6	1.2



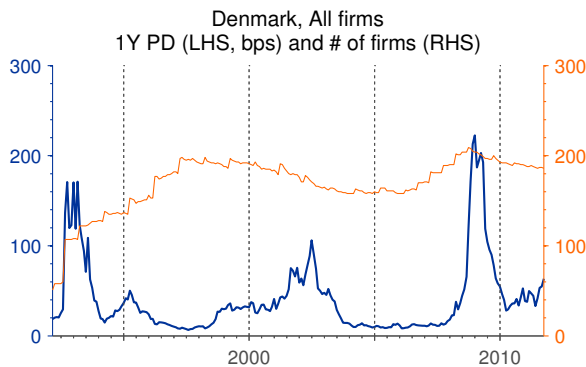
Belgium		2011Q2		2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	30	9.4	12.7	18.2	24.3	8.8	14.5
Basic Materials	8	6.5	6.2	24.9	18.1	18.3	13.1
Communications	10	25.7	28.8	36.6	32.3	10.8	16.5
Consumer Cyclical	6	10.6	11.4	19.1	16.2	8.5	6.3
Consumer Non-cyclical	27	10.8	15.4	24.9	44.7	14.1	30.3
Diversified	8	20.1	45.8	27.9	62.0	7.8	16.7
Energy	2	67.4	13.6	231.4	6.3	164.0	19.9
Industrial	26	12.8	11.7	30.1	32.1	17.3	25.4
Technology	8	11.4	7.8	34.1	25.8	22.6	22.8
Utilities	2	3.2	2.4	2.9	0.9	-0.3	1.5



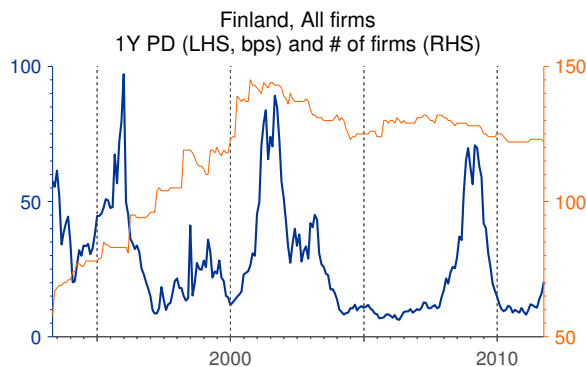
Canada		2011Q2		2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	110	17.9	65.8	27.5	86.6	9.5	53.4
Basic Materials	265	20.5	85.4	22.4	52.4	1.9	71.5
Communications	56	32.9	100.3	147.1	953.9	114.1	889.5
Consumer Cyclical	63	19.1	39.5	72.5	382.4	53.4	365.1
Consumer Non-cyclical	105	41.6	144.9	75.7	376.8	34.1	287.5
Diversified	6	22.9	43.5	21.4	32.2	-1.5	13.2
Energy	159	21.6	66.5	32.8	71.3	11.2	72.3
Industrial	74	22.3	48.9	72.9	314.7	50.5	311.1
Technology	29	48.1	118.7	52.9	115.2	4.8	60.3
Utilities	12	5.6	8.4	7.8	12.3	2.2	8.7



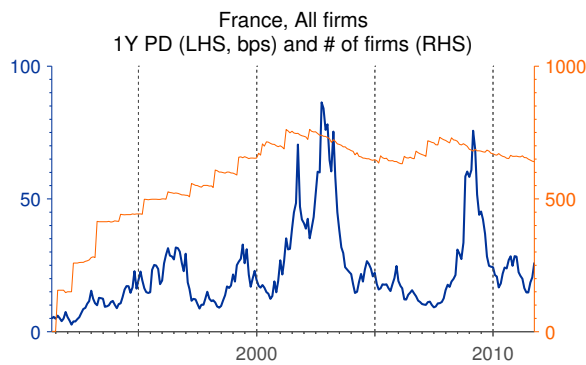
China	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	189	133.3	189.2	151.5	159.5	18.2	84.8
Basic Materials	332	147.6	147.8	173.8	176.7	26.2	71.6
Communications	145	84.9	116.7	119.0	177.7	34.2	106.5
Consumer Cyclical	465	134.1	145.1	147.7	142.9	13.6	56.4
Consumer Non-cyclical	449	111.9	148.6	128.9	160.2	17.0	63.9
Diversified	50	183.8	94.5	220.6	126.8	36.8	55.5
Energy	79	91.3	156.1	157.8	308.3	66.4	258.0
Industrial	743	120.1	150.8	150.3	203.6	30.2	108.8
Technology	144	80.4	107.2	112.6	183.2	32.2	153.2
Utilities	76	192.9	138.0	225.8	153.7	32.9	57.1



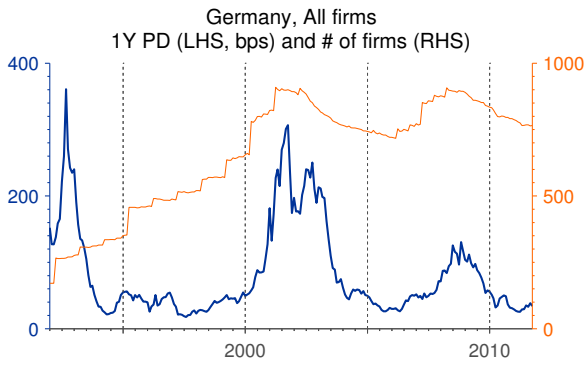
Denmark	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	71	59.9	106.5	64.0	98.1	4.1	51.4
Basic Materials	2	6.0	2.6	9.2	5.0	3.1	2.4
Communications	10	8.1	8.2	13.1	10.6	5.1	7.5
Consumer Cyclical	19	21.9	23.2	49.0	93.5	27.1	82.7
Consumer Non-cyclical	25	7.3	10.9	11.1	13.9	3.8	4.5
Diversified	2	6.3	4.8	9.8	0.9	3.5	3.9
Energy	2	86.0	99.4	63.5	83.1	-22.6	16.3
Industrial	40	45.0	101.4	116.3	342.9	71.3	338.3
Technology	13	48.9	82.4	76.1	135.7	27.1	55.0



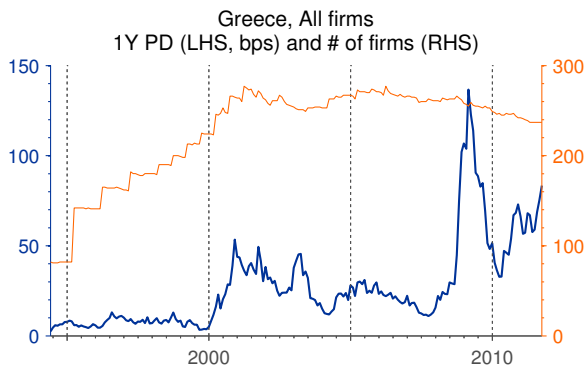
Finland	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	15	12.0	11.9	26.8	25.1	14.8	15.6
Basic Materials	10	4.2	3.9	22.7	18.2	18.5	15.0
Communications	15	8.7	10.3	16.6	20.6	7.8	12.3
Consumer Cyclical	10	23.7	43.7	20.7	37.9	-3.0	38.9
Consumer Non-cyclical	16	12.0	12.9	24.1	20.4	12.2	16.4
Diversified	1	4.6	-	5.8	-	1.2	-
Energy	1	7.2	-	29.2	-	22.1	-
Industrial	37	6.6	7.6	15.7	13.6	9.1	8.2
Technology	16	16.7	23.9	24.2	31.0	7.4	8.7
Utilities	1	0.9	-	1.9	-	1.0	-



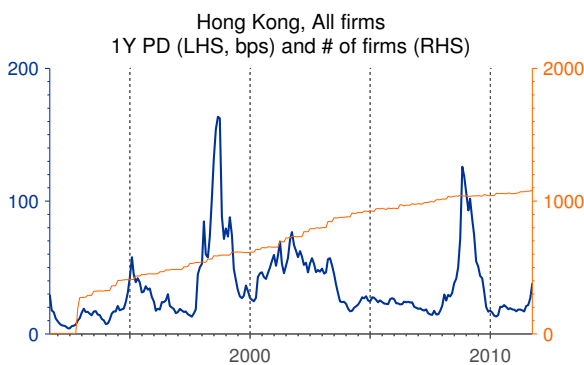
France	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	109	19.8	60.0	27.1	64.8	7.3	27.7
Basic Materials	19	10.1	9.6	20.7	14.6	10.5	13.2
Communications	78	16.6	42.2	33.9	69.4	17.3	30.1
Consumer Cyclical	85	12.5	22.0	25.9	29.9	13.3	15.9
Consumer Non-cyclical	122	8.7	12.1	17.9	24.4	9.3	15.9
Diversified	10	9.2	8.7	25.9	27.7	16.6	22.8
Energy	16	28.6	51.0	42.6	53.6	14.0	21.2
Industrial	106	9.9	12.9	24.9	35.1	15.0	27.6
Technology	83	19.5	61.8	29.8	50.9	10.3	28.9
Utilities	10	11.1	19.9	21.8	38.4	10.7	18.9



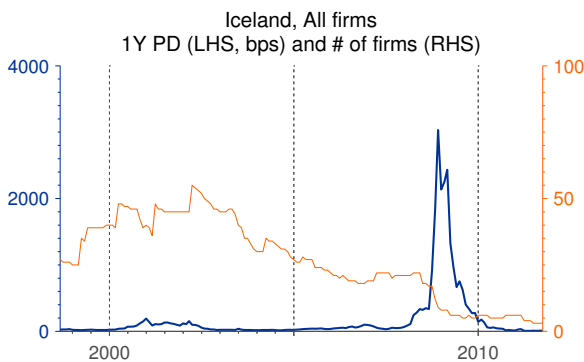
Germany	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	181	34.7	117.6	31.9	65.3	-2.8	71.5
Basic Materials	26	6.4	8.2	9.9	11.1	3.5	5.6
Communications	73	18.9	36.3	26.8	61.4	8.0	31.5
Consumer Cyclical	99	20.2	37.7	22.9	37.8	2.7	21.0
Consumer Non-cyclical	105	57.5	304.9	52.3	241.9	-5.2	86.6
Diversified	5	31.5	35.3	30.7	33.1	-0.8	9.5
Energy	23	31.1	33.4	42.1	48.8	11.1	40.8
Industrial	152	33.8	137.5	46.0	170.1	12.2	119.6
Technology	84	18.3	29.9	23.8	42.5	5.5	30.2
Utilities	10	13.1	30.0	11.6	21.1	-1.6	9.9



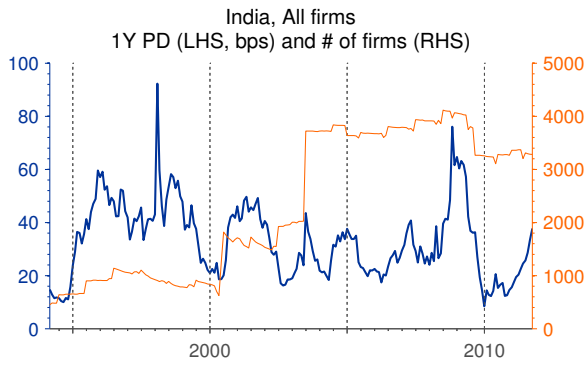
Greece	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	26	59.5	145.2	109.1	169.7	49.6	145.4
Basic Materials	10	24.0	34.0	26.1	22.0	2.1	34.7
Communications	18	57.3	79.1	68.5	60.0	11.3	87.2
Consumer Cyclical	45	34.5	36.3	46.4	59.7	11.9	45.3
Consumer Non-cyclical	39	60.7	116.6	76.2	139.0	15.6	44.0
Diversified	2	20.9	22.5	47.8	56.2	26.8	33.8
Energy	5	8.5	5.5	13.3	8.6	4.8	5.1
Industrial	75	87.0	213.2	122.0	302.3	35.0	114.1
Technology	13	46.2	42.5	77.3	128.4	31.0	107.8
Utilities	3	5.1	2.3	14.2	6.4	9.2	4.1



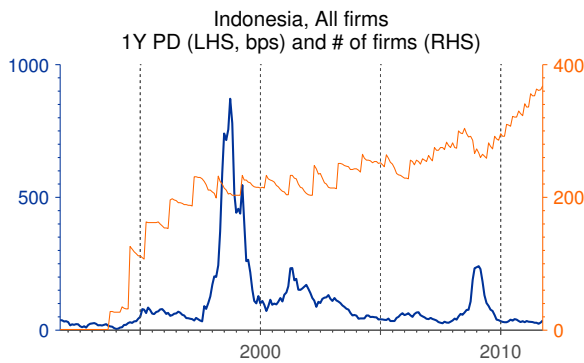
Hong Kong	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	207	14.4	18.1	29.0	33.8	14.6	25.5
Basic Materials	61	27.7	47.8	49.6	55.0	21.9	52.4
Communications	83	20.0	38.5	29.8	32.8	9.8	33.7
Consumer Cyclical	236	17.8	29.0	36.2	52.6	18.4	42.8
Consumer Non-cyclical	126	21.6	30.2	35.2	39.1	13.6	23.6
Diversified	71	15.6	14.4	34.0	36.0	18.4	25.2
Energy	38	26.8	22.3	56.1	52.8	29.3	43.8
Industrial	181	27.7	92.7	48.8	117.4	21.1	62.3
Technology	58	32.3	59.2	54.8	79.7	22.5	39.6
Utilities	11	10.2	8.9	25.3	28.7	15.1	22.5



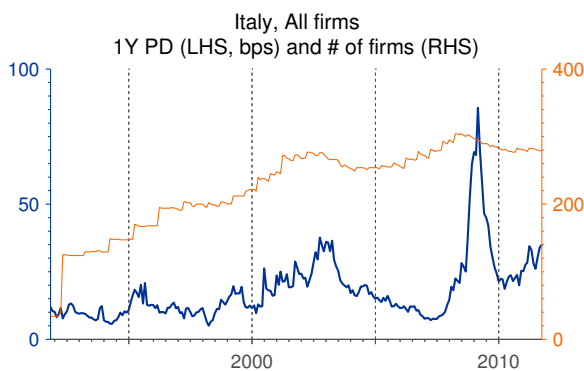
Iceland	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Consumer Cyclical	1	17.5	-	18.3	-	0.8	-
Consumer Non-cyclical	1	3.4	-	3.8	-	0.4	-
Industrial	1	3.5	-	4.0	-	0.4	-



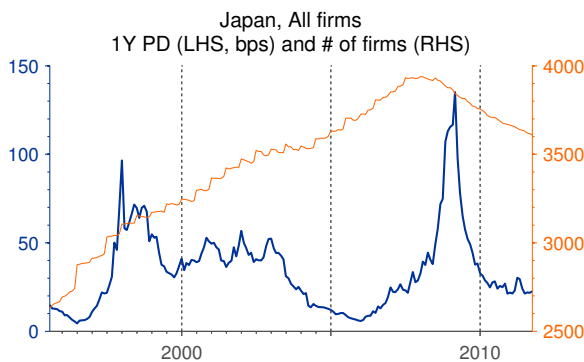
India	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	484	26.4	33.2	38.6	49.4	12.1	20.9
Basic Materials	461	26.0	23.5	38.3	31.1	12.3	15.4
Communications	119	22.1	38.3	31.9	48.7	9.8	14.0
Consumer Cyclical	642	26.3	22.9	39.3	30.8	12.9	13.8
Consumer Non-cyclical	569	28.6	37.3	40.9	49.2	12.3	17.6
Diversified	29	24.1	25.6	34.4	33.4	10.3	12.7
Energy	53	13.8	13.1	22.1	17.8	8.4	9.1
Industrial	691	24.8	20.8	37.0	31.3	12.3	17.0
Technology	200	23.4	28.4	35.0	55.2	11.5	30.3
Utilities	33	11.9	11.7	18.8	18.8	6.9	7.8



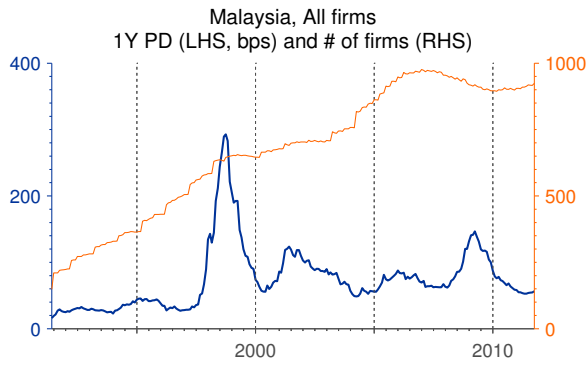
Indonesia	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	97	39.3	39.9	53.2	59.6	14.0	28.6
Basic Materials	43	27.2	29.7	37.4	40.3	10.2	19.7
Communications	21	23.8	19.3	26.8	20.0	3.0	13.1
Consumer Cyclical	58	21.7	25.3	27.4	34.4	5.7	15.4
Consumer Non-cyclical	58	16.9	19.3	21.8	21.3	4.8	8.9
Diversified	1	24.5	-	24.7	-	0.2	-
Energy	23	33.8	29.0	41.4	31.2	7.6	18.1
Industrial	49	28.2	28.7	36.2	40.7	8.0	22.0
Technology	6	11.7	7.6	12.5	6.6	0.7	4.5
Utilities	3	12.5	4.9	44.0	33.5	31.6	37.3



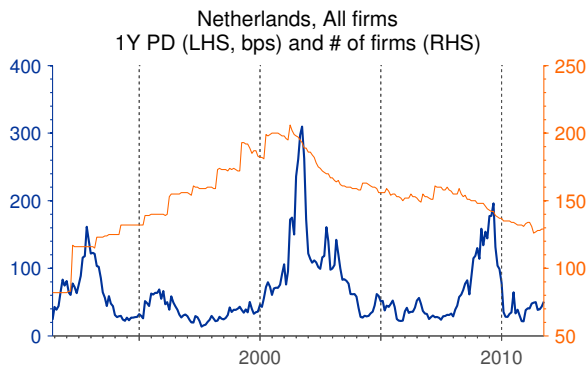
Italy	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	60	29.0	42.9	43.3	57.8	14.4	25.6
Basic Materials	8	19.0	17.1	37.1	38.3	18.1	27.9
Communications	32	13.2	12.7	22.6	17.0	9.4	8.1
Consumer Cyclical	45	14.7	17.9	24.0	20.9	9.3	10.0
Consumer Non-cyclical	32	14.6	23.8	22.1	31.1	7.5	30.9
Diversified	3	5.6	4.3	17.1	8.2	11.5	10.2
Energy	15	16.8	16.9	31.8	32.0	15.0	19.0
Industrial	56	56.0	295.9	57.4	236.5	1.4	64.4
Technology	13	19.7	25.0	33.9	30.7	14.2	29.9
Utilities	14	8.5	9.2	12.3	10.2	3.8	4.2



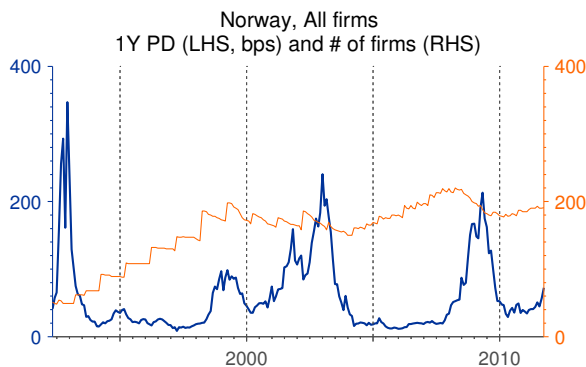
Japan	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	327	54.3	154.7	60.0	211.5	5.7	95.7
Basic Materials	245	15.1	58.2	15.0	32.0	-0.1	35.1
Communications	253	9.4	25.4	11.0	34.3	1.6	15.8
Consumer Cyclical	901	19.0	73.9	18.1	57.5	-0.9	36.1
Consumer Non-cyclical	575	15.8	95.8	20.1	186.8	4.3	99.3
Diversified	2	14.1	10.2	34.5	39.2	20.5	28.9
Energy	15	40.6	90.0	52.3	110.6	11.7	20.9
Industrial	1002	14.7	49.8	18.7	90.7	4.0	67.0
Technology	253	28.0	266.1	28.7	234.5	0.8	46.6
Utilities	24	12.5	32.8	23.6	83.9	11.2	51.4



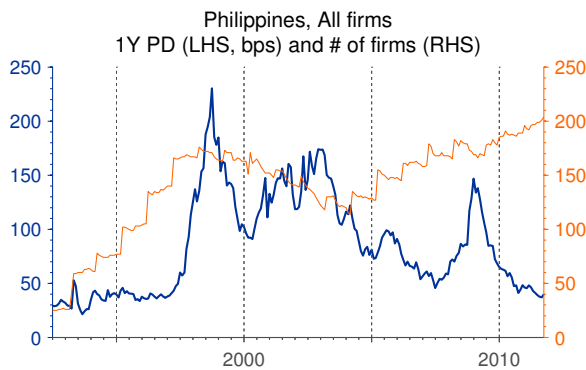
Malaysia	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	129	38.8	57.1	46.1	66.1	7.3	16.9
Basic Materials	71	61.5	73.8	64.7	65.7	3.2	20.3
Communications	36	34.2	51.4	29.3	39.4	-4.9	21.1
Consumer Cyclical	121	60.4	87.0	61.6	88.7	1.2	34.8
Consumer Non-cyclical	155	38.7	60.4	38.8	53.9	0.0	22.6
Diversified	24	29.4	26.9	34.0	29.9	4.6	13.3
Energy	23	58.6	125.7	62.9	111.3	4.4	21.2
Industrial	282	64.6	105.8	72.9	113.2	8.3	30.0
Technology	64	62.1	82.6	59.2	79.8	-2.8	21.5
Utilities	6	3.8	3.8	6.2	4.7	2.4	3.2



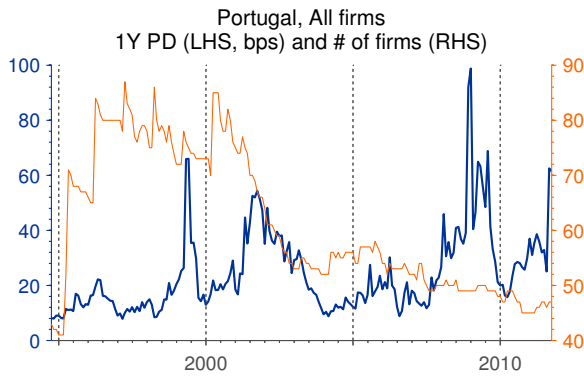
Netherlands	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	18	24.9	35.7	31.6	34.6	6.7	17.2
Basic Materials	5	12.9	16.4	32.3	35.8	19.4	21.2
Communications	10	15.6	23.0	78.3	184.5	62.8	186.7
Consumer Cyclical	11	38.6	99.2	120.4	346.6	81.8	247.5
Consumer Non-cyclical	27	26.3	48.2	44.4	70.8	18.2	54.6
Diversified	4	566.9	1041.8	252.2	290.5	-314.7	850.9
Energy	4	4.9	4.2	6.4	6.3	1.5	8.2
Industrial	32	14.2	21.5	25.3	21.7	11.1	12.4
Technology	16	21.7	25.1	39.9	39.4	18.2	33.8



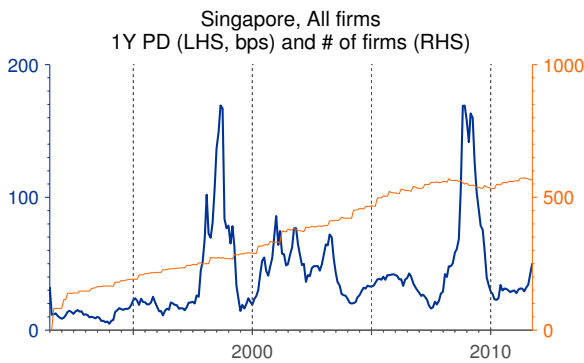
Norway	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	37	52.6	60.5	78.3	184.4	25.7	146.9
Basic Materials	6	29.9	32.9	66.8	95.5	36.9	73.0
Communications	9	9.6	7.7	16.6	13.8	7.1	9.3
Consumer Cyclical	7	11.9	6.3	30.6	20.9	18.7	15.8
Consumer Non-cyclical	37	39.6	108.0	96.7	307.1	57.1	309.4
Diversified	1	1.1	-	3.6	-	2.5	-
Energy	26	31.5	39.8	69.8	116.7	38.3	83.3
Industrial	51	57.3	176.9	79.2	155.9	21.9	106.9
Technology	14	52.4	91.3	47.8	45.4	-4.6	67.6
Utilities	2	3.0	1.6	3.4	1.2	0.4	0.3



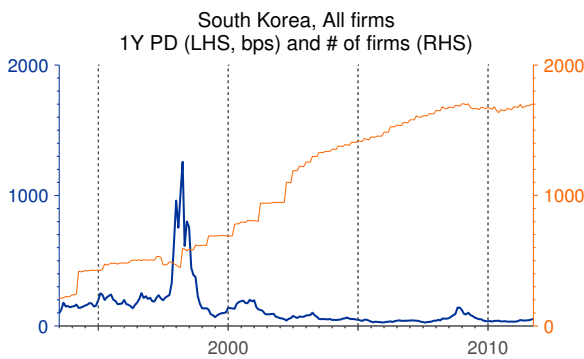
Philippines	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	68	44.8	51.4	50.6	59.3	5.8	29.4
Basic Materials	20	22.9	29.2	23.5	28.2	0.7	10.4
Communications	13	30.7	34.9	33.5	33.1	2.7	13.7
Consumer Cyclical	16	77.5	123.2	58.5	90.2	-19.0	35.4
Consumer Non-cyclical	27	52.6	71.4	56.7	81.7	4.1	17.9
Diversified	17	26.1	36.4	24.8	35.3	-1.3	5.5
Energy	13	9.9	10.1	10.6	12.7	0.8	4.7
Industrial	13	30.6	29.9	36.4	37.6	5.7	11.7
Utilities	9	16.2	10.2	16.5	11.3	0.3	4.3



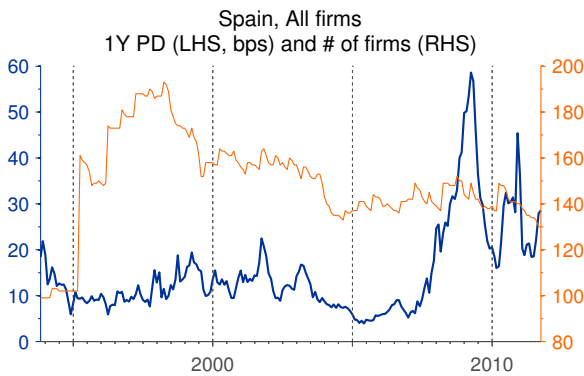
Portugal	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	5	23.0	13.4	68.5	29.6	45.4	25.7
Basic Materials	7	17.4	17.1	40.7	50.9	23.3	38.4
Communications	7	46.4	55.8	67.1	55.5	20.7	22.5
Consumer Cyclical	8	34.6	22.8	66.1	48.6	31.5	36.9
Consumer Non-cyclical	6	67.4	76.8	87.7	108.3	20.2	80.1
Diversified	2	18.2	6.8	34.4	17.4	16.2	10.6
Energy	1	1.1	-	4.0	-	2.9	-
Industrial	7	24.3	14.0	68.6	44.8	44.3	34.5
Technology	2	41.5	46.7	82.4	95.0	41.0	48.4
Utilities	2	4.7	3.1	9.3	3.2	4.7	0.1



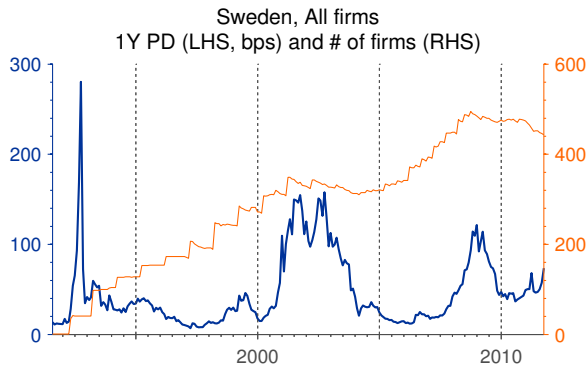
Singapore	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	87	21.0	25.8	36.2	45.2	15.2	23.9
Basic Materials	31	42.0	38.3	66.7	58.5	24.7	38.7
Communications	29	47.1	54.3	53.4	55.6	6.3	24.4
Consumer Cyclical	81	29.2	40.7	49.9	64.6	20.7	36.7
Consumer Non-cyclical	73	23.6	32.9	42.1	69.2	18.5	43.2
Diversified	11	41.0	67.8	46.9	50.1	5.9	24.5
Energy	30	38.9	40.5	61.4	54.7	22.5	26.3
Industrial	189	35.6	47.5	55.9	65.6	20.3	36.7
Technology	29	34.9	36.9	55.2	67.2	20.2	31.9
Utilities	1	0.9	-	19.4	-	18.5	-



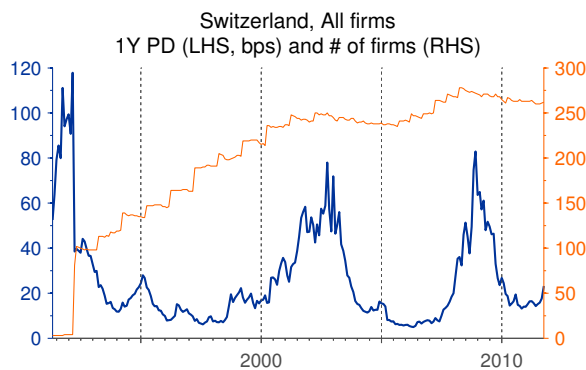
South Korea	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	116	56.8	55.0	69.4	85.8	12.6	66.3
Basic Materials	183	34.6	39.3	48.0	44.0	13.4	23.6
Communications	171	35.6	60.7	46.2	110.0	10.6	72.7
Consumer Cyclical	259	36.8	39.2	51.5	50.7	14.6	24.4
Consumer Non-cyclical	218	27.9	51.2	37.6	75.0	9.7	30.1
Diversified	33	20.4	32.9	22.5	37.6	2.1	11.2
Energy	9	32.5	22.3	67.1	47.1	34.6	29.8
Industrial	501	44.6	56.1	63.9	68.3	19.4	40.2
Technology	172	40.5	49.4	51.3	51.8	10.8	33.1
Utilities	17	32.7	18.0	40.4	28.0	7.8	15.5



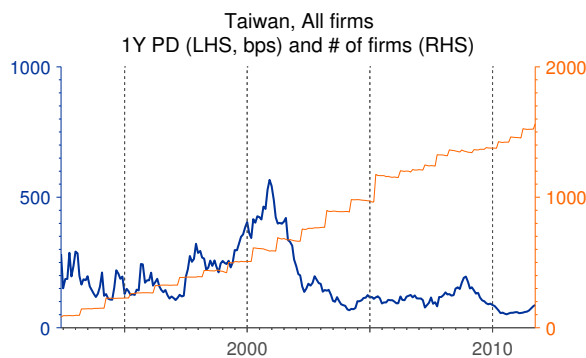
Spain	#	2011Q2		2011Q3		Q3-Q2	
		Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	34	36.2	59.3	58.6	128.7	22.5	99.8
Basic Materials	10	6.8	5.7	12.3	8.6	5.5	4.3
Communications	10	44.2	113.2	31.9	46.2	-12.3	69.9
Consumer Cyclical	12	7.0	5.8	14.4	9.8	7.4	6.3
Consumer Non-cyclical	25	12.2	14.9	22.5	28.1	10.4	17.8
Energy	3	6.9	7.5	12.2	12.6	5.2	5.1
Industrial	25	10.8	10.6	17.2	16.1	6.4	7.7
Technology	4	7.4	10.7	11.7	16.1	4.4	5.6
Utilities	7	2.6	2.2	4.4	2.4	1.8	0.7



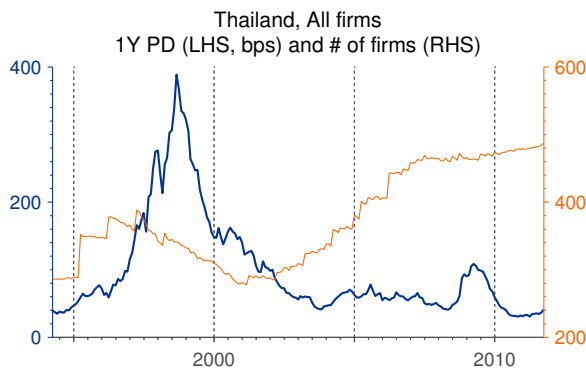
Sweden	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	55	40.2	72.3	63.1	142.1	22.9	95.6
Basic Materials	27	44.2	73.4	68.8	111.1	24.7	88.1
Communications	47	60.4	108.3	113.4	223.1	52.9	163.1
Consumer Cyclical	52	25.9	31.7	43.1	47.7	17.2	24.1
Consumer Non-cyclical	100	40.1	117.7	61.2	171.1	21.1	66.0
Diversified	7	8.4	10.8	26.0	38.6	17.7	28.0
Energy	14	71.4	84.2	291.3	809.7	219.9	750.1
Industrial	96	49.0	117.9	68.4	145.9	19.4	97.1
Technology	41	38.2	89.1	64.9	185.3	26.7	131.9
Utilities	1	13.3	-	19.0	-	5.8	-



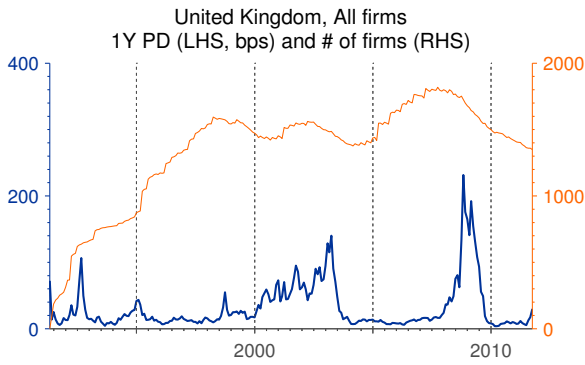
Switzerland	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	65	11.9	21.0	18.3	31.9	6.4	17.5
Basic Materials	16	9.6	16.9	53.5	145.3	44.0	137.5
Communications	14	24.0	63.1	28.0	55.8	4.0	30.9
Consumer Cyclical	24	25.9	77.7	28.8	88.0	2.9	71.0
Consumer Non-cyclical	40	10.4	34.7	19.2	73.5	8.8	39.4
Diversified	3	30.9	29.9	35.7	29.6	4.7	13.4
Energy	8	62.6	121.7	76.8	108.1	14.2	24.6
Industrial	68	7.3	15.1	11.8	20.1	4.5	14.0
Technology	11	17.2	28.1	28.8	30.0	11.7	10.5
Utilities	10	31.7	87.4	31.6	81.4	-0.1	6.7



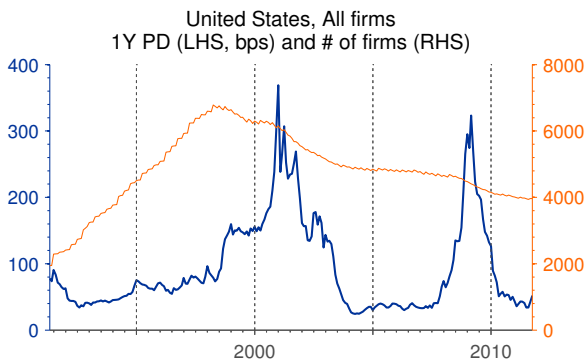
Taiwan	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	95	45.5	38.9	72.0	56.3	26.5	33.0
Basic Materials	98	51.5	118.9	92.5	249.5	41.0	172.5
Communications	84	33.2	76.0	70.4	270.1	37.2	214.9
Consumer Cyclical	177	57.7	152.7	62.0	125.9	4.2	53.9
Consumer Non-cyclical	127	46.0	140.5	50.2	101.9	4.2	62.7
Diversified	2	43.8	49.7	30.5	34.6	-13.2	15.1
Energy	9	88.8	129.2	211.6	276.0	122.8	150.4
Industrial	594	77.9	331.5	107.7	389.1	29.8	169.2
Technology	325	76.7	235.3	88.6	200.7	11.9	102.2
Utilities	7	10.6	14.8	5.8	7.5	-4.8	10.5



Thailand	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	99	45.7	48.8	52.2	56.8	6.6	19.4
Basic Materials	48	38.7	46.7	49.0	48.1	10.3	22.8
Communications	34	26.8	36.1	32.5	46.0	5.8	14.6
Consumer Cyclical	106	32.7	43.7	35.1	43.8	2.4	13.2
Consumer Non-cyclical	68	23.7	34.7	25.6	33.9	2.0	11.8
Diversified	2	7.0	2.7	11.8	0.6	4.8	3.3
Energy	14	14.9	11.8	25.9	20.0	11.1	9.3
Industrial	93	40.3	44.2	52.0	56.0	11.7	27.0
Technology	11	56.2	60.2	56.6	49.2	0.5	35.4
Utilities	6	8.3	10.6	18.5	23.1	10.2	16.8



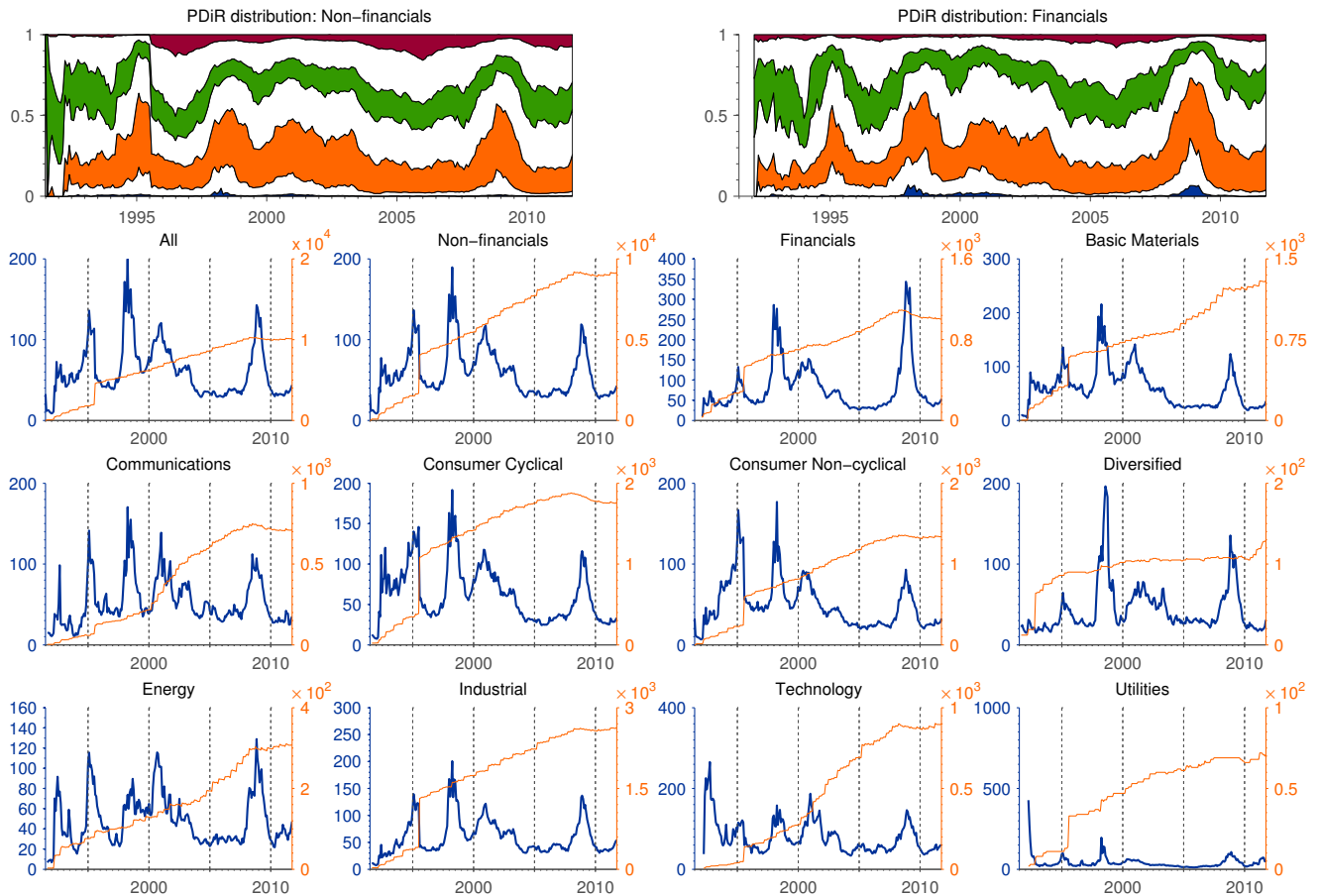
United Kingdom	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	237	5.1	10.2	27.3	35.7	22.2	27.7
Basic Materials	110	4.9	9.0	30.8	50.4	25.9	43.4
Communications	129	6.3	8.1	35.2	34.6	28.9	27.8
Consumer Cyclical	162	5.7	11.2	34.5	55.3	28.8	49.4
Consumer Non-cyclical	258	4.3	8.0	26.0	25.5	21.7	19.1
Diversified	18	6.0	8.3	32.8	30.4	26.8	23.8
Energy	109	4.9	9.0	27.1	22.7	22.1	19.2
Industrial	191	7.5	33.2	32.4	54.9	24.8	31.9
Technology	102	4.7	7.9	25.7	23.5	21.0	18.7
Utilities	13	3.1	5.3	28.1	45.2	25.0	44.2



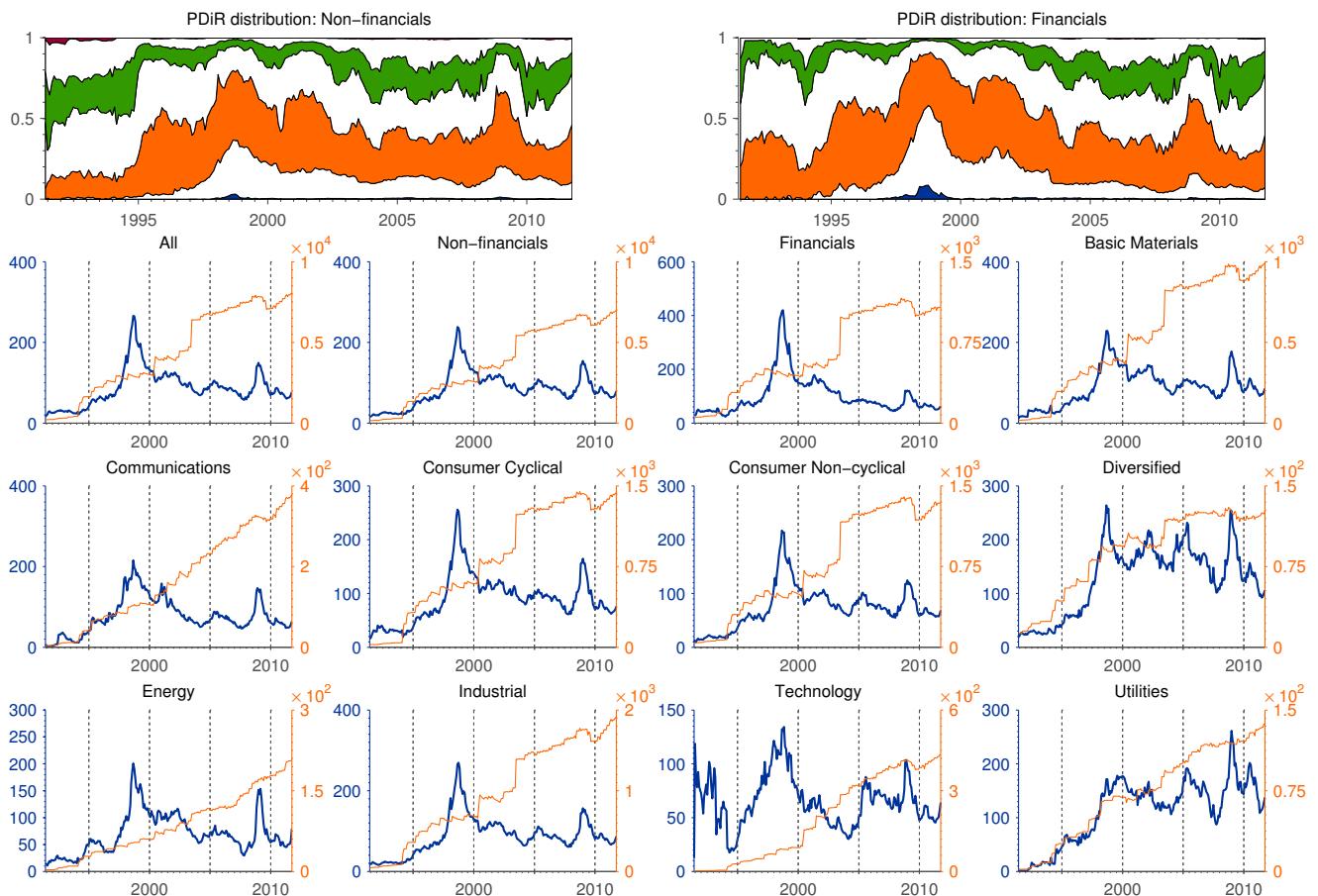
United States	2011Q2			2011Q3		Q3-Q2	
	#	Mean	St.Dev.	Mean	St.Dev.	Mean	St.Dev.
Financials	905	64.7	199.3	82.5	333.8	17.8	215.3
Basic Materials	146	8.6	19.6	20.6	43.1	12.0	29.5
Communications	322	42.4	165.3	85.8	379.9	43.5	268.2
Consumer Cyclical	461	20.5	57.6	32.8	65.5	12.3	52.9
Consumer Non-cyclical	818	24.6	164.0	34.3	145.8	9.7	83.1
Diversified	9	53.4	101.4	43.1	48.8	-10.3	62.9
Energy	273	33.1	121.8	60.8	199.5	27.7	112.6
Industrial	538	25.7	89.9	59.6	291.5	33.9	250.3
Technology	345	12.8	33.6	22.6	61.7	9.8	39.8
Utilities	97	4.3	10.7	6.0	16.3	1.7	10.0

B PD by regions

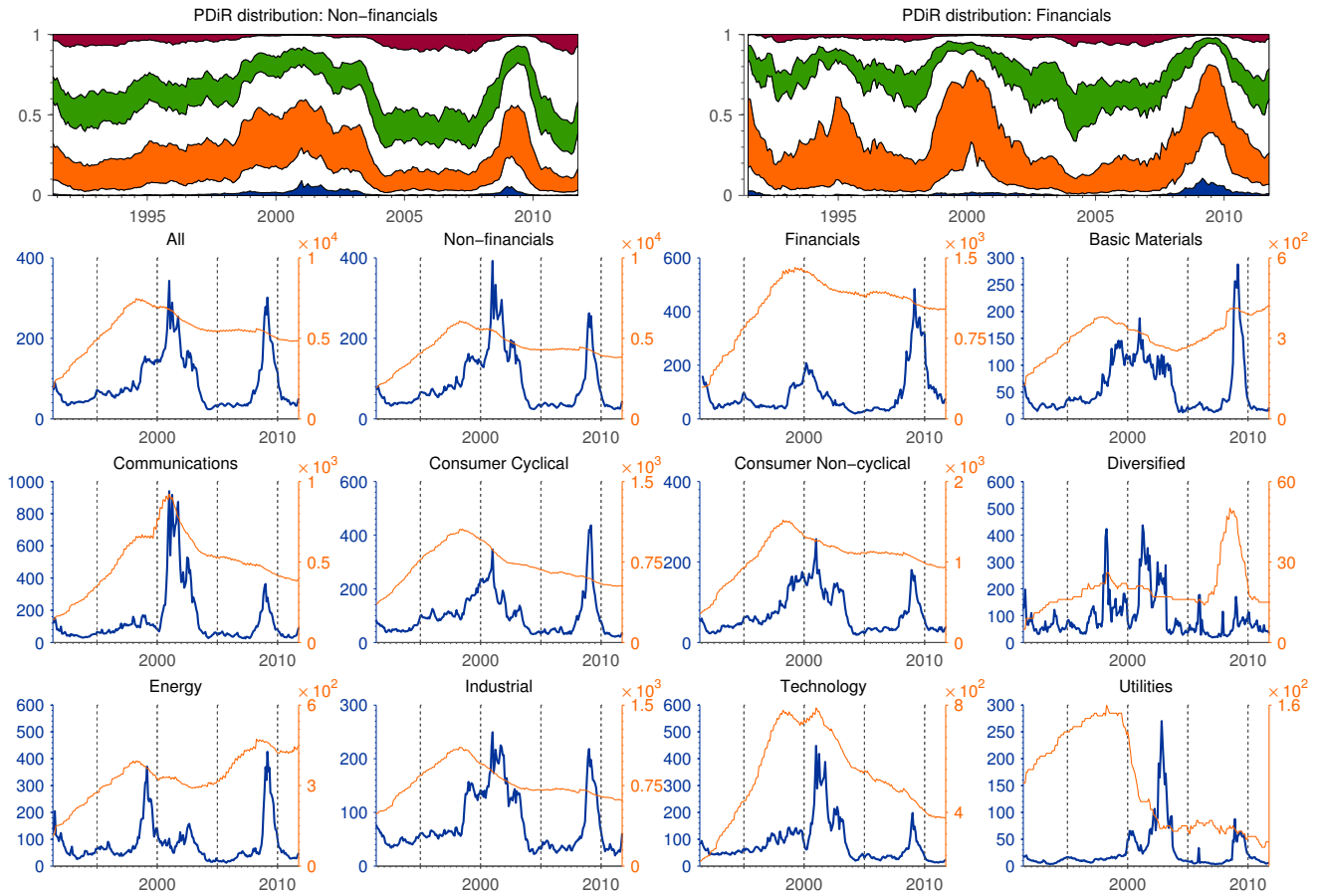
Asia Pacific - developed economies



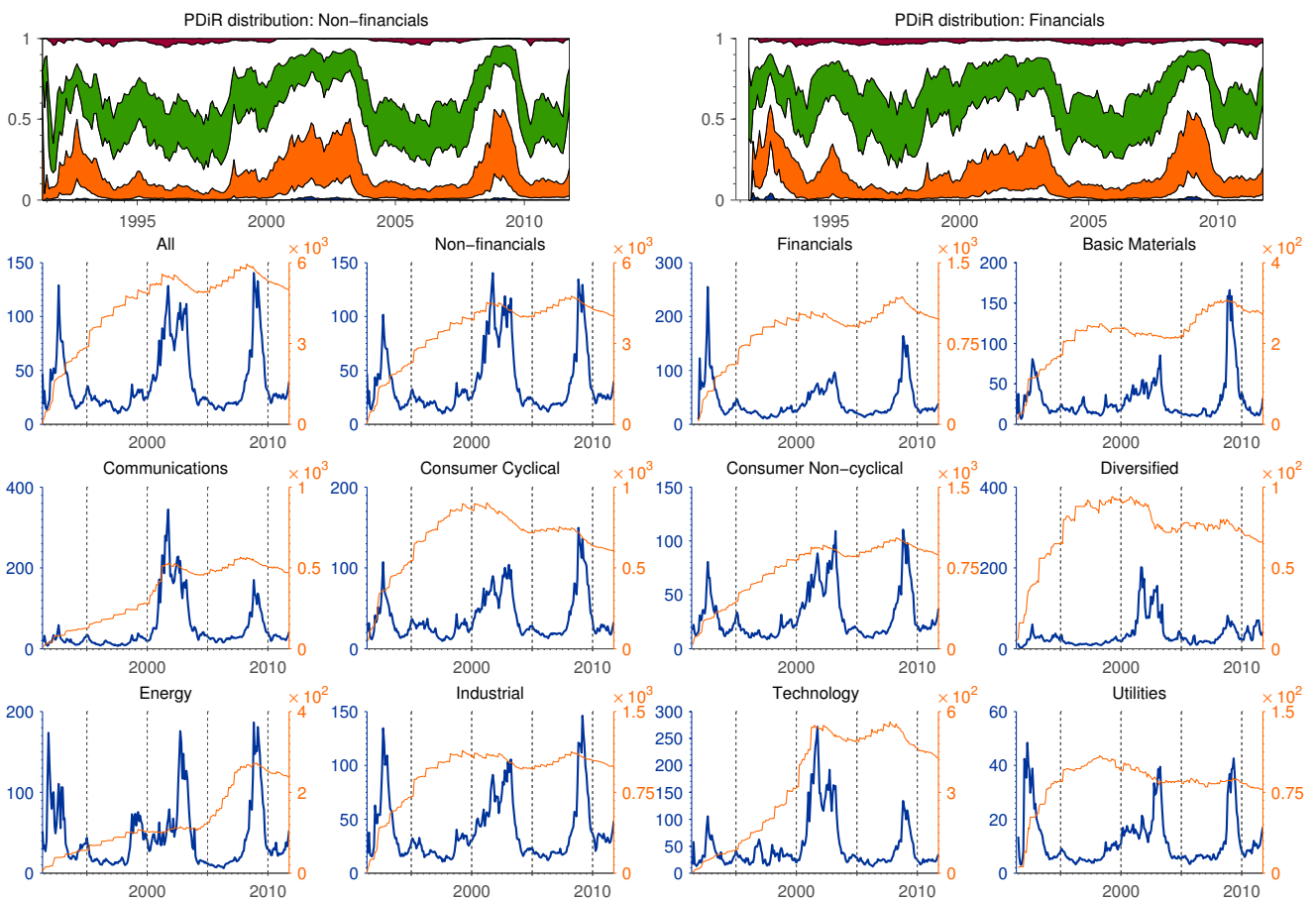
Asia Pacific - emerging economies



North America

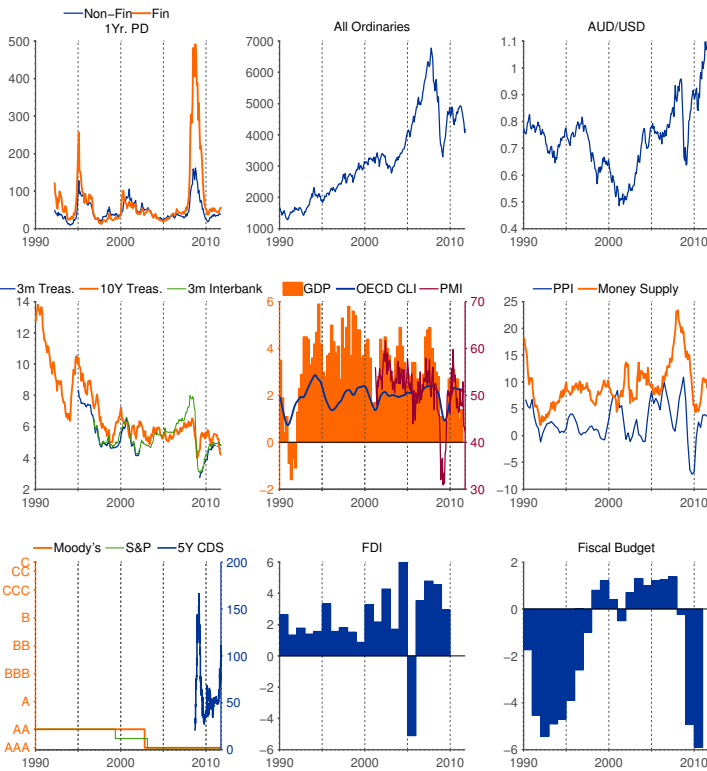


Western Europe

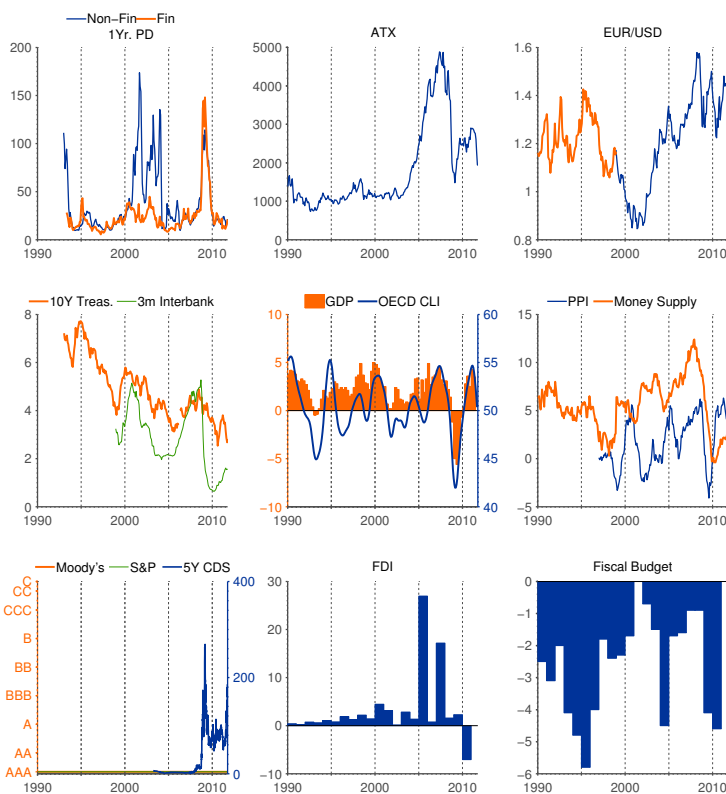


C Macroeconomic Indicators

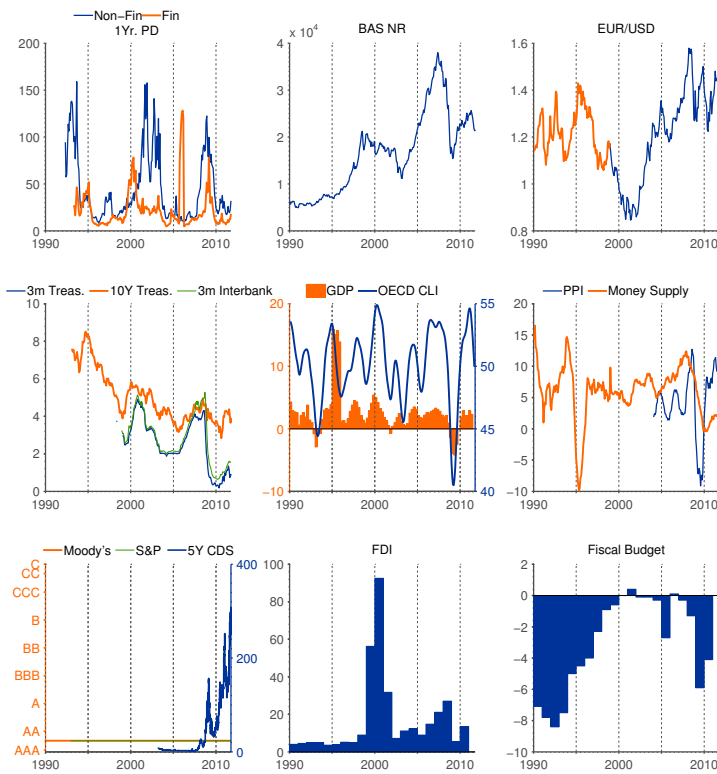
Descriptions of the data contained in this section are provided in Appendix D.



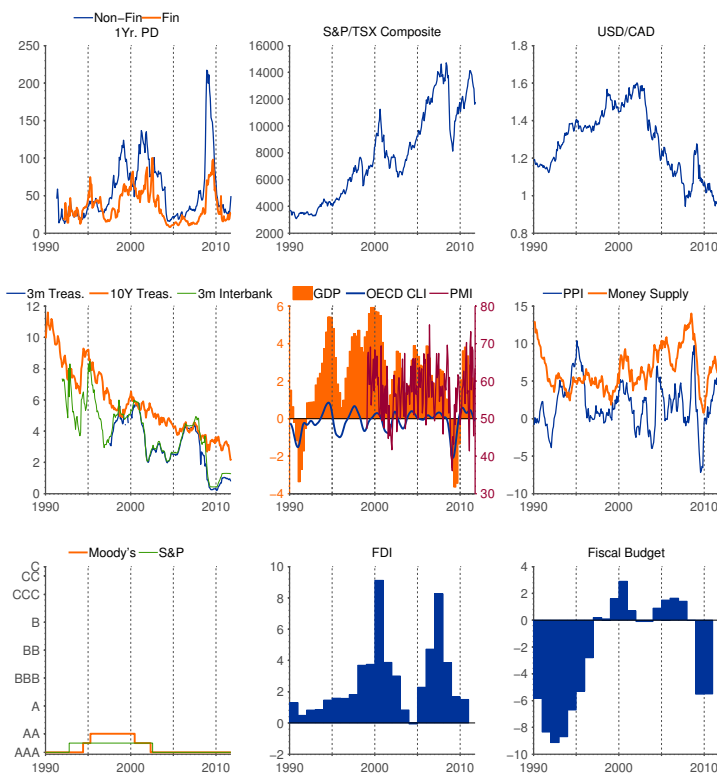
Australia	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	35.58	37.57	35.15	37.37	39.56
1Yr. PD, Fin.	55.17	54.03	46.30	42.77	57.80
All Ordinaries	4637	4847	4929	4660	4070
AUD/USD	0.97	1.02	1.03	1.07	0.97
3m Treas. Yield (%)	4.78	4.84	-	-	4.57
10Y Treas. Yield (%)	4.96	5.54	5.49	5.21	4.22
3m Interbank (%)	4.89	4.97	4.92	4.97	4.87
GDP (YoY%)	2.7	2.7	1.0	1.4	-
OECD CLI	101.44	101.31	101.29	100.80	100.69*
PMI	47.3	46.3	47.9	52.9	42.3
PPI (YoY%)	1.5	3.8	3.9	3.6	-
Money Supply (YoY%)	6.40	10.43	9.99	8.98	8.11*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	45.36	50.41	52.31	57.12	98.90
Fiscal Budget (%GDP)	-	-5.89	-	-	-



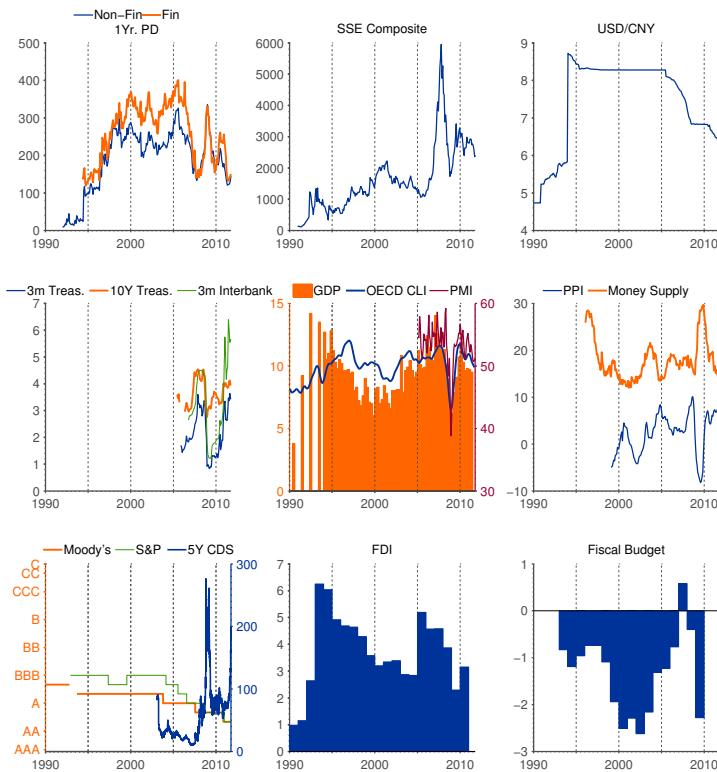
Austria	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	21.99	15.78	23.57	19.89	21.42
1Yr. PD, Fin.	19.54	19.36	14.28	11.29	21.20
ATX	2542	2904	2882	2767	1948
EUR/USD	1.36	1.34	1.42	1.45	1.34
10Y Treas. Yield (%)	2.80	3.51	3.80	3.50	2.68
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	3.6	2.5	4.3	3.5	-
OECD CLI	103.35	104.43	104.46	102.50	100.35*
PPI (YoY%)	4.5	5.4	6.3	4.7	4.1*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	84.06	100.31	59.50	61.45	170.95
FDI (%GDP)	-	-7.07	-	-	-
Fiscal Budget (%GDP)	-	-4.60	-	-	-



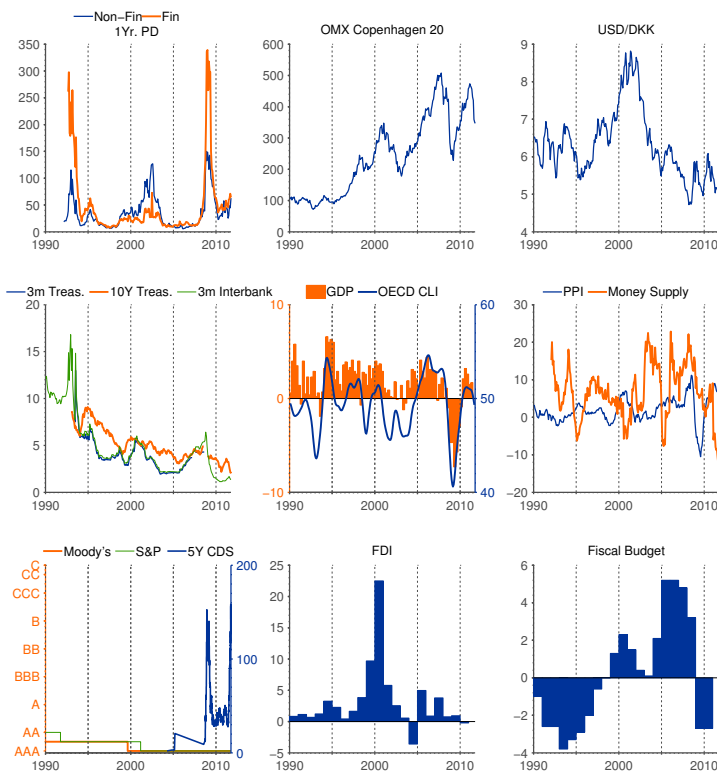
Belgium	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	37.62	27.00	17.27	20.43	31.95
1Yr. PD, Fin.	12.91	8.72	8.60	9.42	18.18
BAS NR	24012	24376	24803	24165	21347
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	0.42	0.54	1.05	1.35	0.83
10Y Treas. Yield (%)	3.14	3.97	4.30	4.09	3.65
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	2.1	2.1	2.9	2.3	-
OECD CLI	103.09	104.40	104.30	102.03	99.95*
PPI (YoY%)	7.8	8.9	11.1	9.2	8.0*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Aa1	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA+	AA+	AA+	AA+	AA+
5Y CDS (bps)	125.8	217.9	139.4	143.1	260.0
FDI (%GDP)	-	13.44	-	-	-
Fiscal Budget (%GDP)	-	-4.10	-	-	-



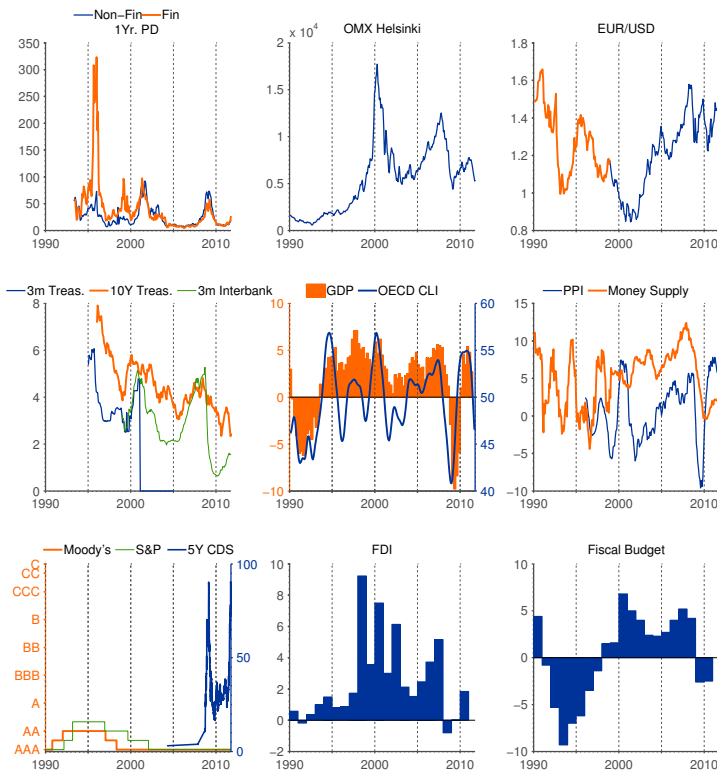
Canada	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	36.07	27.07	27.16	29.23	49.48
1Yr. PD, Fin.	16.09	18.46	17.84	18.00	27.09
S&P/TSX Composite	12369	13443	14116	13301	11624
USD/CAD	1.03	1.00	0.97	0.96	1.05
3m Treas. Yield (%)	1.01	1.05	0.96	0.90	0.81
10Y Treas. Yield (%)	2.76	3.12	3.35	3.11	2.15
3m Interbank (%)	1.29	1.30	1.30	1.29	1.28
GDP (YoY%)	3.82	3.35	2.85	2.17	-
OECD CLI	101.51	102.03	102.16	100.64	99.27*
PMI	70.3	50.0	73.2	68.2	63.4
PPI (YoY%)	1.58	3.05	5.15	5.43	5.23*
Money Supply (YoY%)	6.12	7.03	8.28	6.44	6.57*
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)	-	-5.50	-	-	-



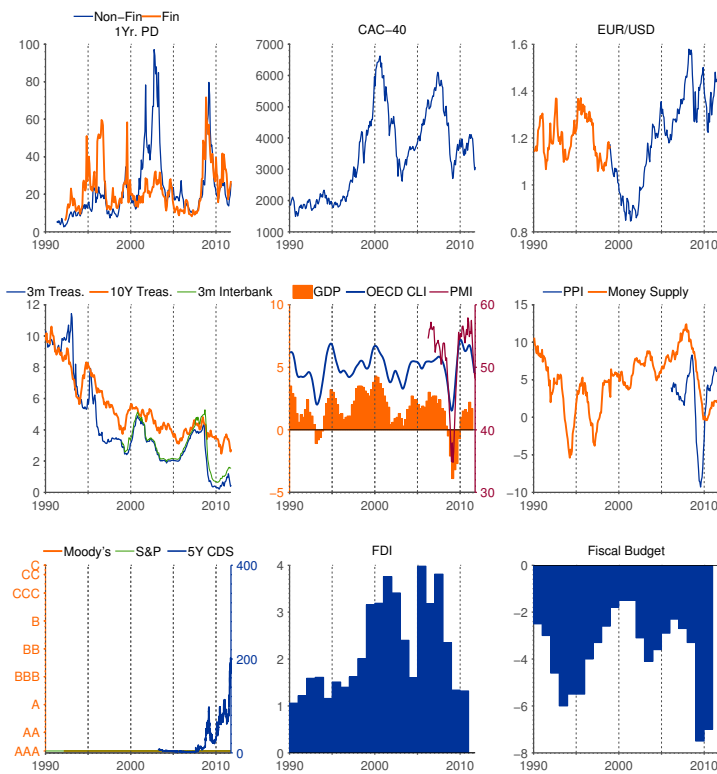
China	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	179.67	167.30	130.96	123.07	144.78
1Yr. PD, Fin.	237.47	236.00	156.05	132.97	150.36
SSE Composite	2656	2808	2928	2762	2359
USD/CNY	6.69	6.61	6.55	6.46	6.38
3m Treas. Yield (%)	1.91	3.18	2.66	3.47	3.44
10Y Treas. Yield (%)	3.33	3.91	3.91	3.89	3.93
3m Interbank (%)	2.61	4.62	4.17	6.39	5.65
GDP (YoY%)	9.6	9.8	9.7	9.5	-
OECD CLI	101.31	101.92	101.28	100.28	99.77*
PMI	53.8	53.9	53.4	50.9	51.2
PPI (YoY%)	4.3	5.9	7.3	7.1	7.3*
Money Supply (YoY%)	19.0	19.7	16.6	15.9	13.6*
Sov. Rating, Moody's	A1	Aa3	Aa3	Aa3	Aa3
Sov. Rating, S&P	A+	AA-	AA-	AA-	AA-
5Y CDS (bps)	71.32	69.35	73.77	85.45	190.25
FDI (%GDP)	-	3.15	-	-	-



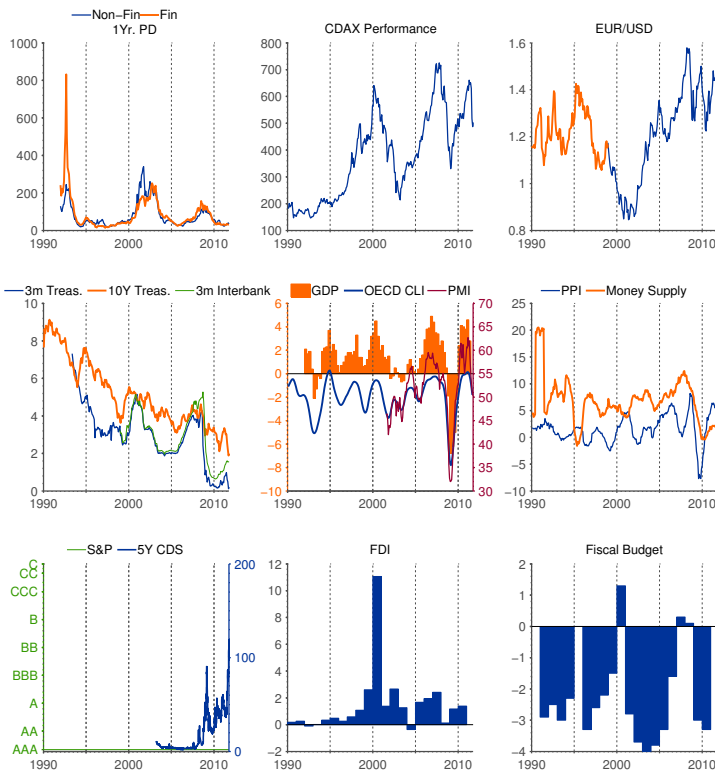
Denmark	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	28.87	37.06	44.36	30.12	62.98
1Yr. PD, Fin.	41.34	41.19	51.91	59.86	64.21
OMX Copenhagen 20	417.0	457.6	467.1	431.1	350.3
USD/DKK	5.47	5.57	5.27	5.14	5.56
10Y Treas. Yield (%)	2.39	3.02	3.59	3.24	2.08
3m Interbank (%)	1.15	1.21	1.34	1.61	1.38
GDP (YoY%)	3.2	2.6	1.5	1.7	-
OECD CLI	101.22	101.07	100.94	100.30	99.32*
PPI (YoY%)	5.5	7.7	9.0	6.8	6.6*
Money Supply (YoY%)	4.00	9.08	-4.27	-8.53	-12.75*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	35.79	45.86	38.09	44.51	143.64
FDI (%GDP)	-	-0.22	-	-	-
Fiscal Budget (%GDP)	-	-2.70	-	-	-



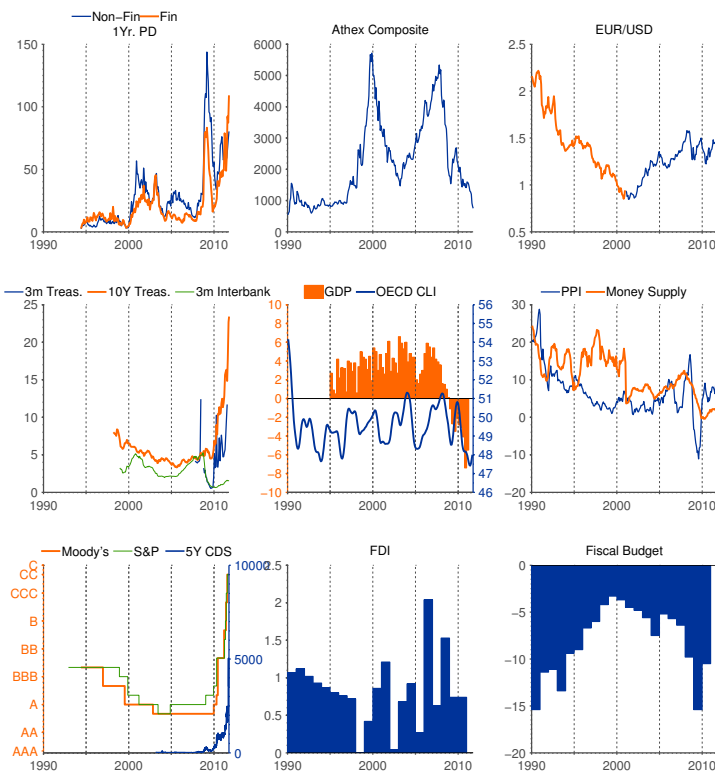
Finland	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	9.40	9.29	11.68	10.54	19.38
1Yr. PD, Fin.	8.81	8.01	13.89	12.05	26.82
OMX Helsinki	7096	7662	7520	6717	5272
EUR/USD	1.36	1.34	1.42	1.45	1.34
10Y Treas. Yield (%)	2.54	3.16	3.57	3.34	2.34
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	3.5	5.4	4.8	2.7	-
OECD CLI	104.95	104.73	103.36	99.73	96.52*
PPI (YoY%)	7.2	7.8	7.8	5.9	5.5*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	29.94	33.45	29.35	35.12	80.89
FDI (%GDP)	-	1.84	-	-	-
Fiscal Budget (%GDP)	-	-2.50	-	-	-



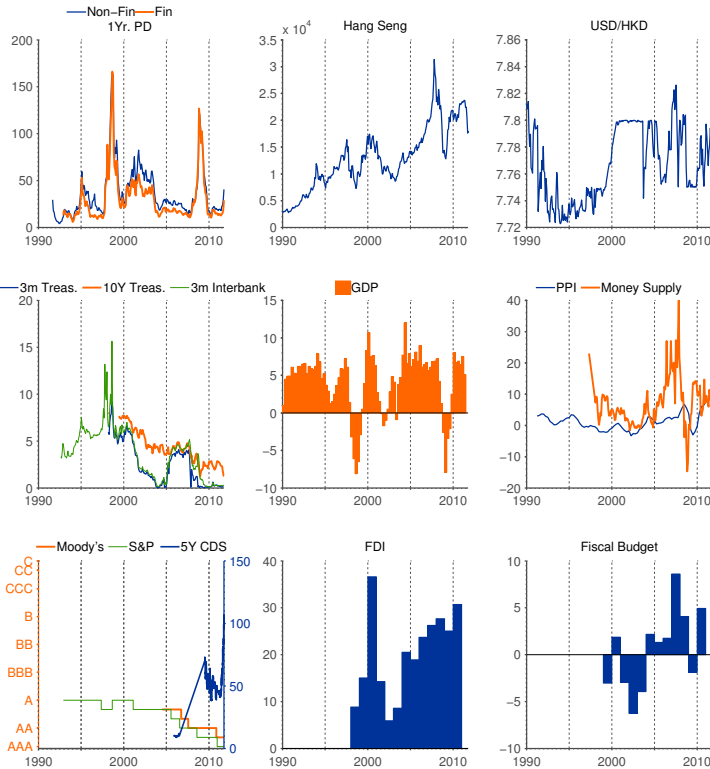
France	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	25.62	26.26	17.70	13.77	25.84
1Yr. PD, Fin.	41.75	37.95	30.77	19.65	27.05
CAC-40	3715	3805	3989	3982	2982
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	0.51	0.40	0.80	1.18	0.38
10Y Treas. Yield (%)	2.66	3.36	3.71	3.41	2.60
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	1.6	1.4	2.2	1.7	-
OECD CLI	102.75	103.49	103.01	100.90	99.09*
PMI	56.0	57.2	55.4	52.5	48.2
PPI (YoY%)	4.2	5.4	6.7	6.1	6.3*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	78.96	101.02	74.45	80.17	187.31
FDI (%GDP)	-	1.32	-	-	-
Fiscal Budget (%GDP)	-	-7.00	-	-	-



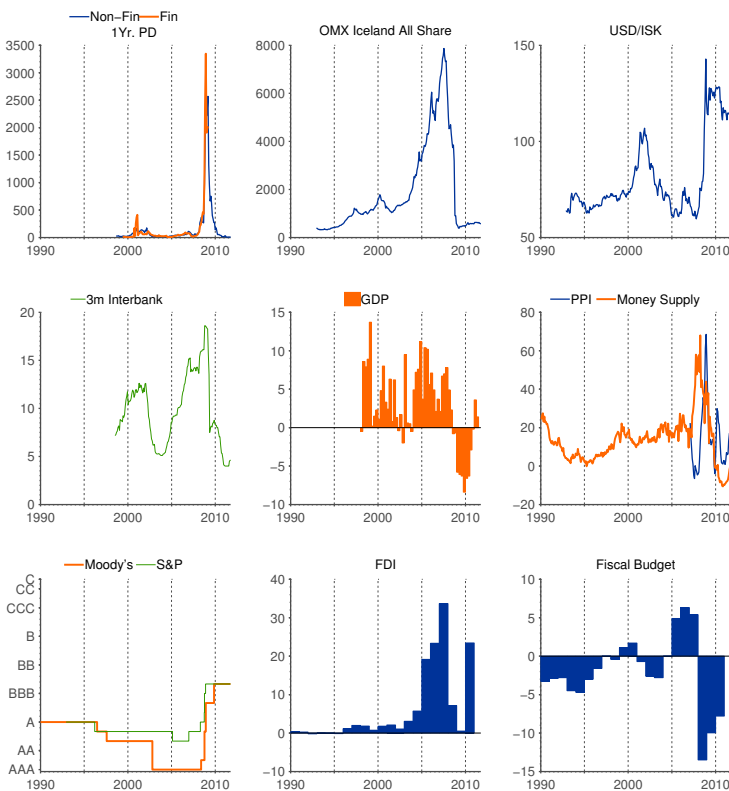
Germany	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	38.28	28.81	24.09	35.01	34.82
1Yr. PD, Fin.	31.53	30.02	29.27	35.44	31.78
CDAX Performance	545.5	611.3	623.0	651.4	487.2
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	0.36	0.31	0.75	0.98	0.11
10Y Treas. Yield (%)	2.28	2.96	3.35	3.02	1.89
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	4.0	3.8	4.6	2.8	-
OECD CLI	104.82	105.21	105.15	103.00	100.48*
PMI	55.1	60.7	60.9	54.6	50.3
PPI (YoY%)	3.9	5.2	6.2	5.5	5.5*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	39.00	58.44	45.00	42.84	112.23
FDI (%GDP)	-	1.39	-	-	-
Fiscal Budget (%GDP)	-	-3.30	-	-	-



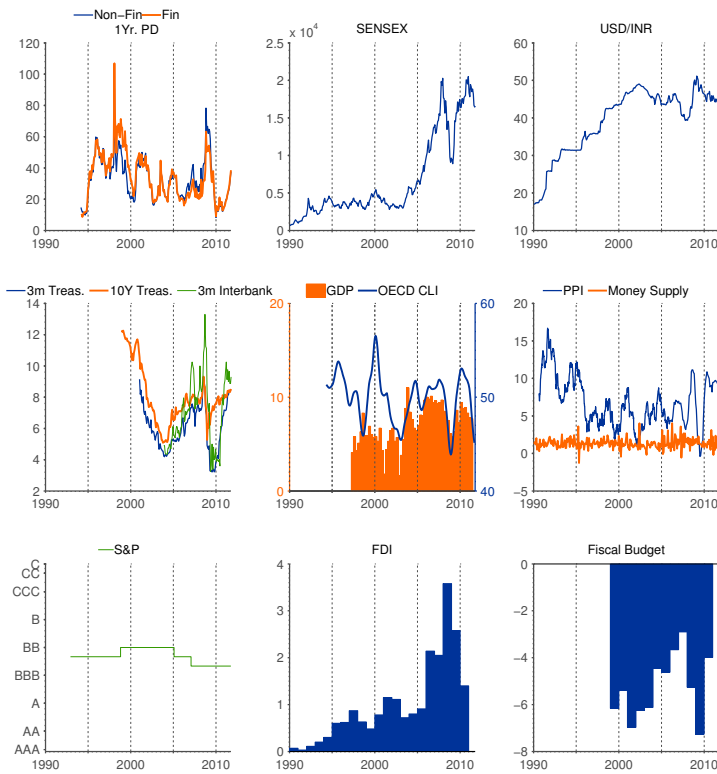
Greece	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	69.48	69.07	66.72	58.88	80.23
1Yr. PD, Fin.	47.42	44.23	78.80	59.50	109.12
Athex Composite	1471	1414	1535	1279	798
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	4.20	6.46	5.26	9.62	11.71*
10Y Treas. Yield (%)	10.45	12.47	12.84	16.34	22.69
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	-4.1	-7.4	-5.5	-	-
OECD CLI	98.17	98.07	97.59	97.52	98.00*
PPI (YoY%)	5.2	6.9	8.1	6.3	7.5*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Ba1	Ba1	B1	Caa1	Ca
Sov. Rating, S&P	BB+	BB+	BB-	CCC	CC
5Y CDS (bps)	792.5	1074.1	1003.1	1952.4	3535.7
FDI (%GDP)	-	0.74	-	-	-
Fiscal Budget (%GDP)	-	-10.50	-	-	-



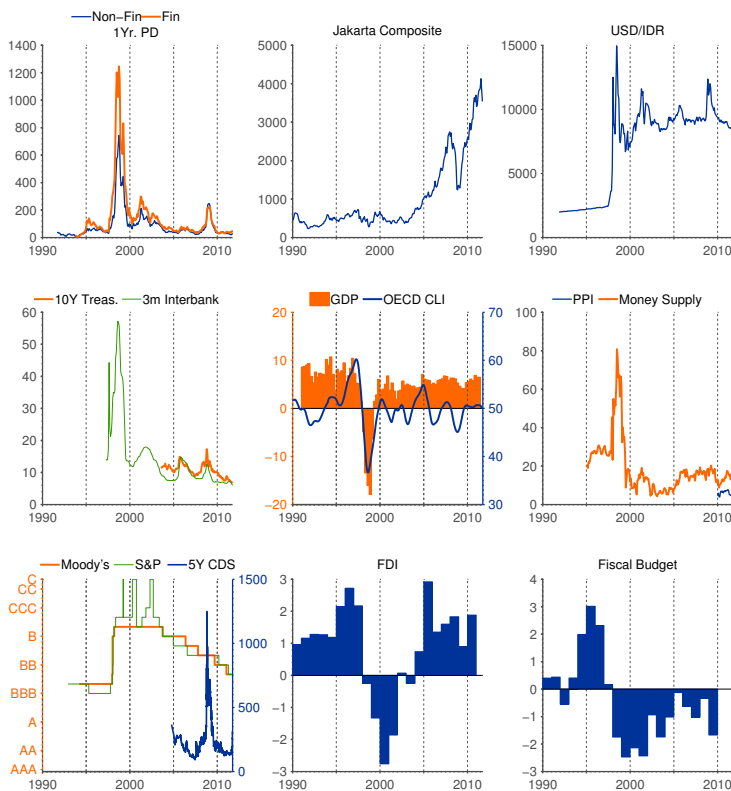
Hong Kong	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	19.45	19.04	19.36	22.52	40.53
1Yr. PD, Fin.	14.78	14.70	13.60	14.36	28.91
Hang Seng	22358	23035	23528	22398	17592
USD/HKD	7.76	7.77	7.78	7.78	7.79
3m Treas. Yield (%)	0.26	0.29	0.22	0.10	0.13
10Y Treas. Yield (%)	2.00	2.87	2.69	2.33	1.31
3m Interbank (%)	0.33	0.28	0.26	0.26	0.28
GDP (YoY%)	6.9	6.4	7.5	5.1	-
PPI (YoY%)	6.4	7.6	8.2	8.9	-
Money Supply (YoY%)	8.7	7.6	7.2	8.4	6.9*
Sov. Rating, Moody's	Aa2	Aa1	Aa1	Aa1	Aa1
Sov. Rating, S&P	AA+	AAA	AAA	AAA	AAA
5Y CDS (bps)	47.70	45.52	43.51	57.84	104.18
FDI (%GDP)	-	30.70	-	-	-
Fiscal Budget (%GDP)	-	4.94	-	-	-



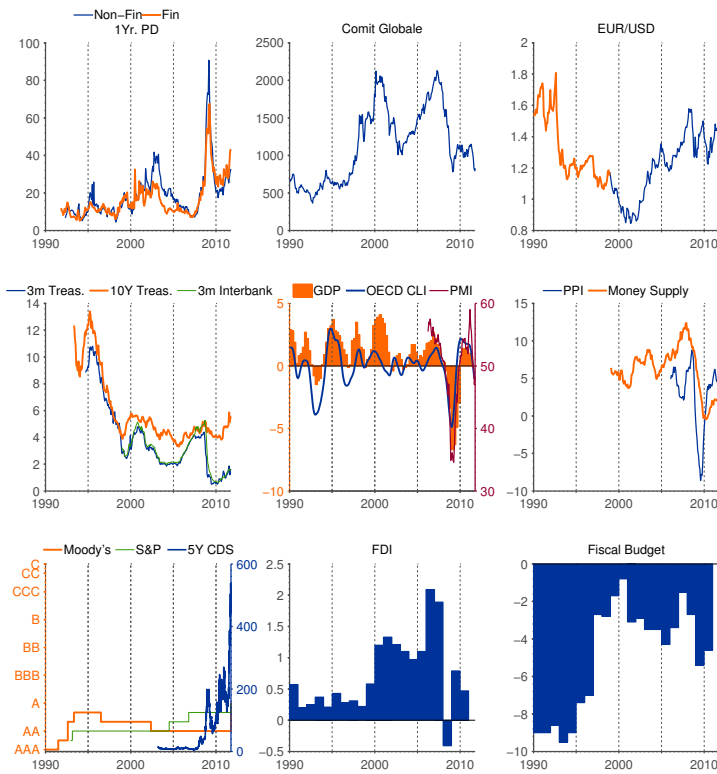
Iceland	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	14.35	11.59	7.05	8.14	8.69
OMX Iceland All Share	572.1	569.2	626.8	605.0	576.8
USD/ISK	113.2	114.9	114.1	114.3	118.3
3m Interbank (%)	5.35	4.15	4.00	4.00	4.60
GDP (YoY%)	-2.9	-0.2	3.6	1.4	-
PPI (YoY%)	1.39	2.64	6.97	13.01	17.20*
Money Supply (YoY%)	-10.22	-9.87	-8.17	-5.02	0.04*
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)	-	-7.79	-	-	-



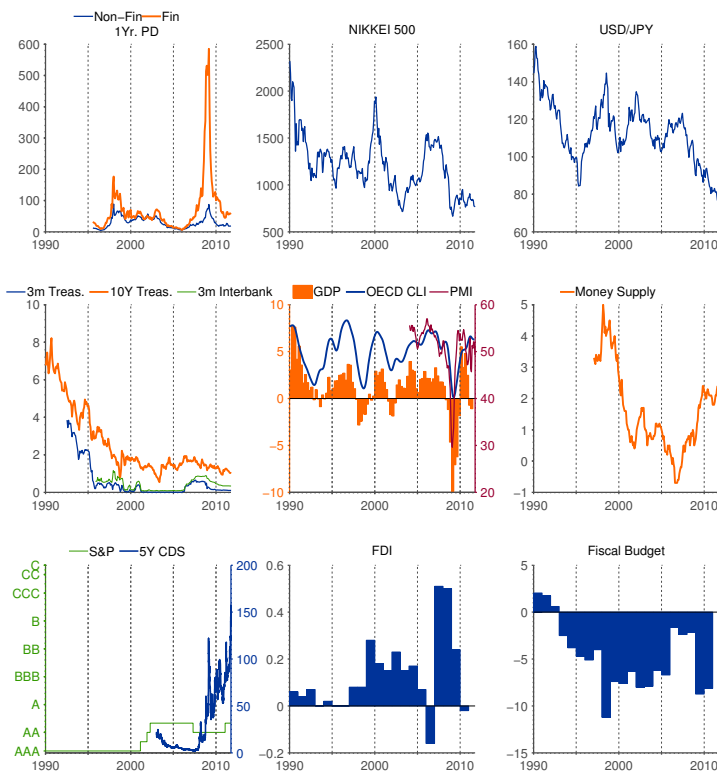
India	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	12.29	15.66	20.41	25.58	37.64
1Yr. PD, Fin.	12.80	15.15	19.87	26.50	38.55
SENSEX	20069	20509	19445	18846	16454
USD/INR	44.95	44.70	44.59	44.70	48.97
3m Treas. Yield (%)	6.19	7.18	7.22	8.15	8.42
10Y Treas. Yield (%)	7.84	7.92	7.99	8.33	8.43
3m Interbank (%)	7.50	8.80	10.25	9.00	8.88
GDP (YoY%)	8.9	8.3	7.8	7.7	-
OECD CLI	101.91	101.35	99.46	96.56	95.13*
PPI (YoY%)	8.98	9.45	9.68	9.51	9.78*
Money Supply (YoY%)	0.48	2.26	0.45	1.43	-
Sov. Rating, S&P	BBB-	BBB-	BBB-	BBB-	BBB-
FDI (%GDP)	-	1.40	-	-	-
Fiscal Budget (%GDP)	-	-3.99	-	-	-



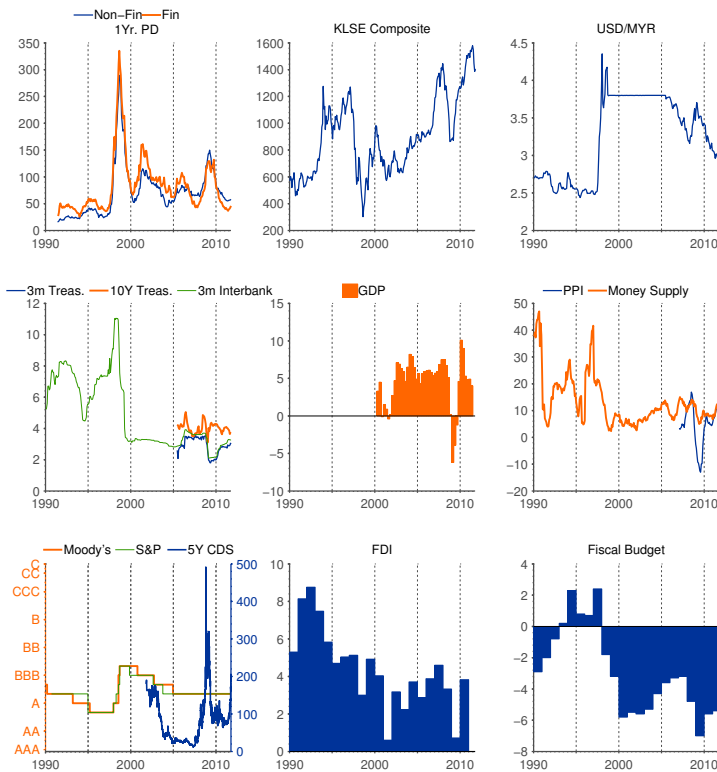
Indonesia	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	34.18	27.17	28.30	23.49	30.31
1Yr. PD, Fin.	33.94	35.31	37.23	39.29	52.46
Jakarta Composite	3501	3704	3679	3889	3549
USD/IDR	8908	8996	8708	8579	8950
10Y Treas. Yield (%)	7.63	7.61	8.04	7.55	6.92
3m Interbank (%)	6.95	6.63	7.05	7.14	6.10
GDP (YoY%)	5.8	6.9	6.5	6.5	-
OECD CLI	100.34	100.63	100.68	100.54	99.98*
PPI (YoY%)	6.92	7.25	7.43	4.66	4.87
Money Supply (YoY%)	12.70	15.32	16.06	13.07	17.21*
Sov. Rating, Moody's	Ba2	Ba2	Ba1	Ba1	Ba1
Sov. Rating, S&P	BB	BB	BB	BB+	BB+
5Y CDS (bps)	142.3	128.2	144.0	141.7	291.5
FDI (%GDP)	-	1.88	-	-	-



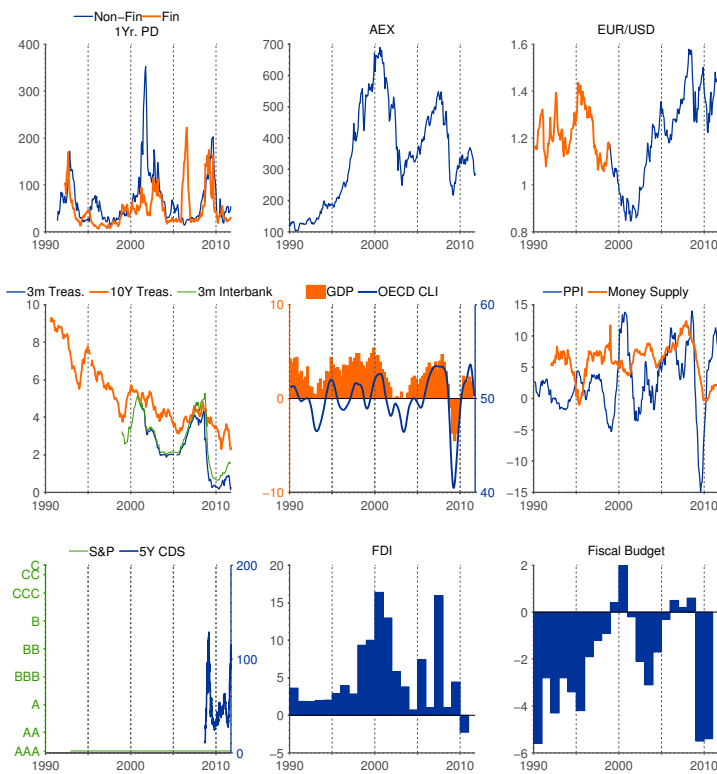
Italy	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	23.00	23.79	34.27	25.34	32.75
1Yr. PD, Fin.	27.12	30.75	34.97	28.98	43.35
Comit Globale	1033	1048	1120	1039	796
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	0.94	1.33	1.08	1.58	1.60
10Y Treas. Yield (%)	3.88	4.82	4.82	4.88	5.54
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	1.4	1.5	1.0	0.8	-
OECD CLI	103.54	103.48	102.64	100.10	97.92*
PMI	52.6	54.7	56.2	49.8	48.3
PPI (YoY%)	4.2	4.7	6.2	4.6	4.8*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Aa2	Aa2	Aa2	Aa2	A2
Sov. Rating, S&P	A+	A+	A+	A+	A
5Y CDS (bps)	194.9	238.5	150.9	171.0	470.0
FDI (%GDP)	-	0.47	-	-	-
Fiscal Budget (%GDP)	-	-4.60	-	-	-



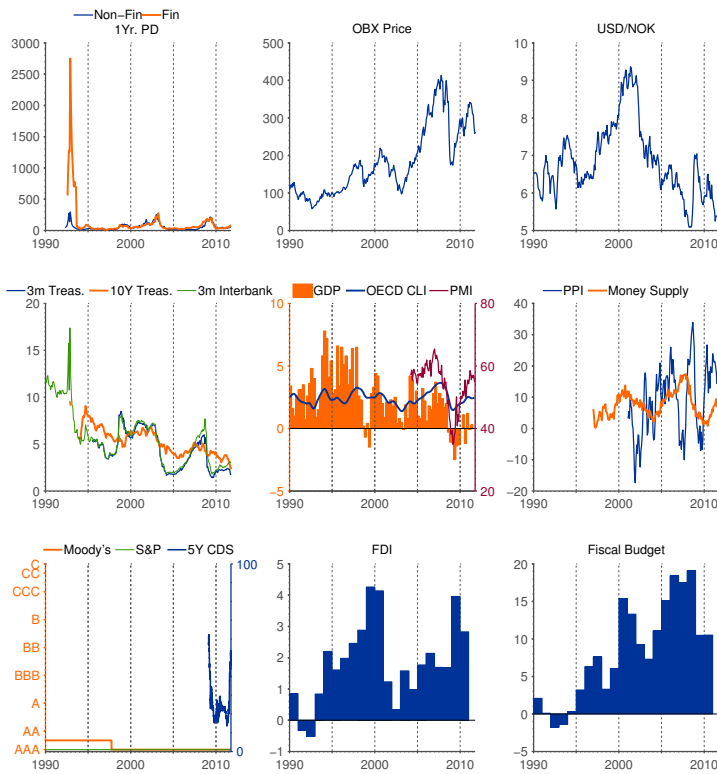
Japan	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	21.40	19.51	27.03	17.96	18.89
1Yr. PD, Fin.	59.10	45.26	61.84	55.07	59.80
NIKKEI 500	792.2	865.5	846.2	845.7	770.3
USD/JPY	83.53	81.12	83.13	80.56	77.06
3m Treas. Yield (%)	0.11	0.12	0.11	0.10	0.10
10Y Treas. Yield (%)	0.94	1.13	1.26	1.14	1.03
3m Interbank (%)	0.36	0.34	0.34	0.34	0.34
GDP (YoY%)	4.80	2.48	-0.72	-1.09	-
OECD CLI	100.89	102.48	103.25	102.67	102.53*
PMI	49.5	48.3	46.4	50.7	49.3
Money Supply (YoY%)	2.1	1.8	1.9	2.3	2.2*
Sov. Rating, S&P	AA	AA	AA-	AA-	AA-
5Y CDS (bps)	61.66	72.42	99.75	90.77	146.47
FDI (%GDP)	-	-0.02	-	-	-
Fiscal Budget (%GDP)	-	-8.14	-	-	-



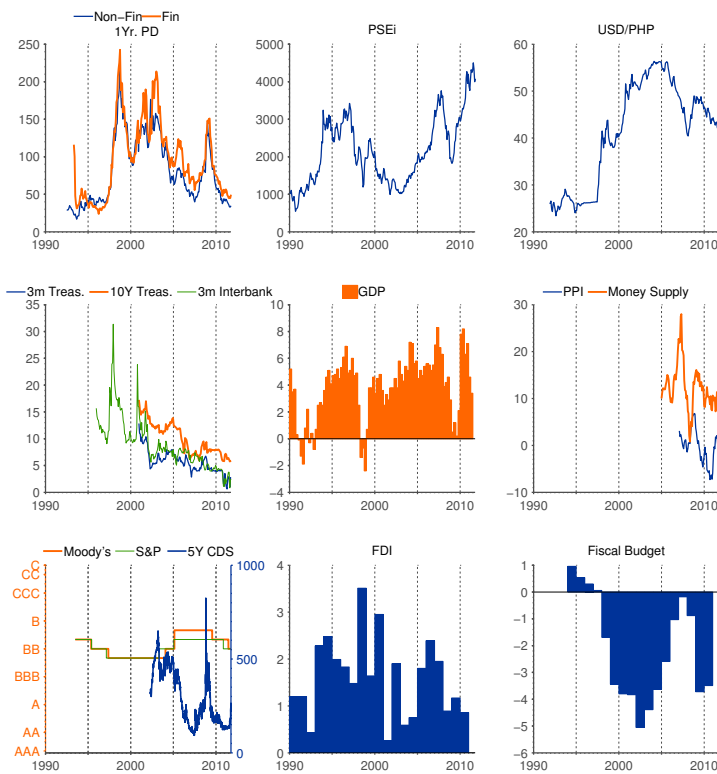
Malaysia	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	66.06	60.83	55.69	56.14	58.14
1Yr. PD, Fin.	49.05	42.22	40.17	39.12	45.92
KLSE Composite	1464	1519	1545	1579	1387
USD/MYR	3.09	3.06	3.03	3.02	3.19
3m Treas. Yield (%)	2.80	2.81	2.80	2.89	3.05
10Y Treas. Yield (%)	3.63	4.04	4.10	3.93	3.70
3m Interbank (%)	2.93	2.98	3.04	3.29	3.26
GDP (YoY%)	5.3	4.8	4.9	4.0	-
PPI (YoY%)	4.9	5.5	7.9	10.7	-
Money Supply (YoY%)	8.18	6.76	7.97	12.36	10.59*
Sov. Rating, Moody's	A3	A3	A3	A3	A3
Sov. Rating, S&P	A-	A-	A-	A-	A-
5Y CDS (bps)	80.14	74.51	75.00	90.68	196.85
FDI (%GDP)	-	3.83	-	-	-
Fiscal Budget (%GDP)	-	-5.60	-	-	-



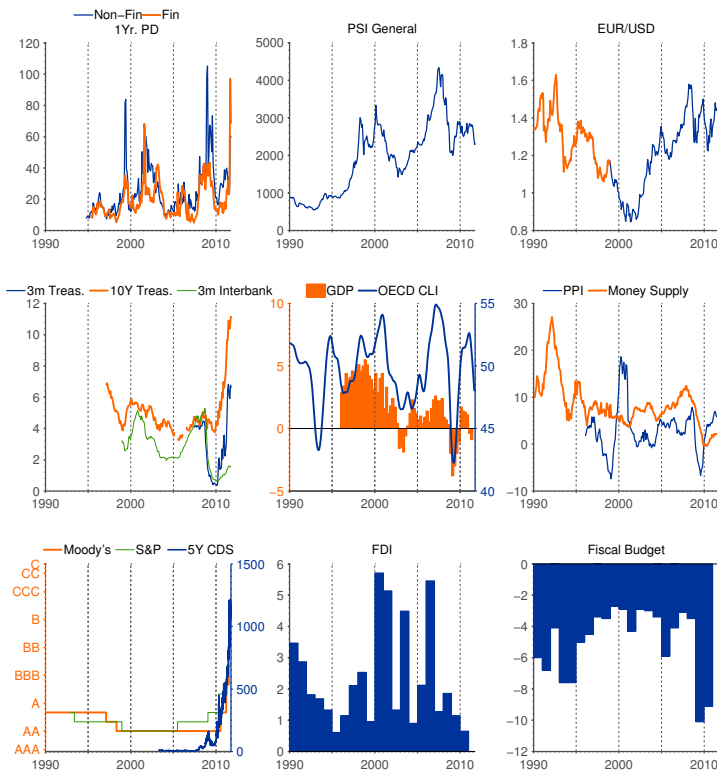
Netherlands	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	25.61	39.85	52.20	40.79	53.93
1Yr. PD, Fin.	54.94	29.42	22.61	24.91	31.62
AEX	334.4	354.6	365.6	339.6	280.2
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	0.52	0.36	0.81	0.90	0.16
10Y Treas. Yield (%)	2.51	3.15	3.64	3.34	2.29
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	1.7	1.9	2.3	1.8	-
OECD CLI	102.08	103.11	103.59	101.94	100.25*
PPI (YoY%)	6.3	7.8	10.6	9.1	7.7*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	45.52	63.04	37.75	38.03	105.14
FDI (%GDP)	-	-2.26	-	-	-
Fiscal Budget (%GDP)	-	-5.40	-	-	-



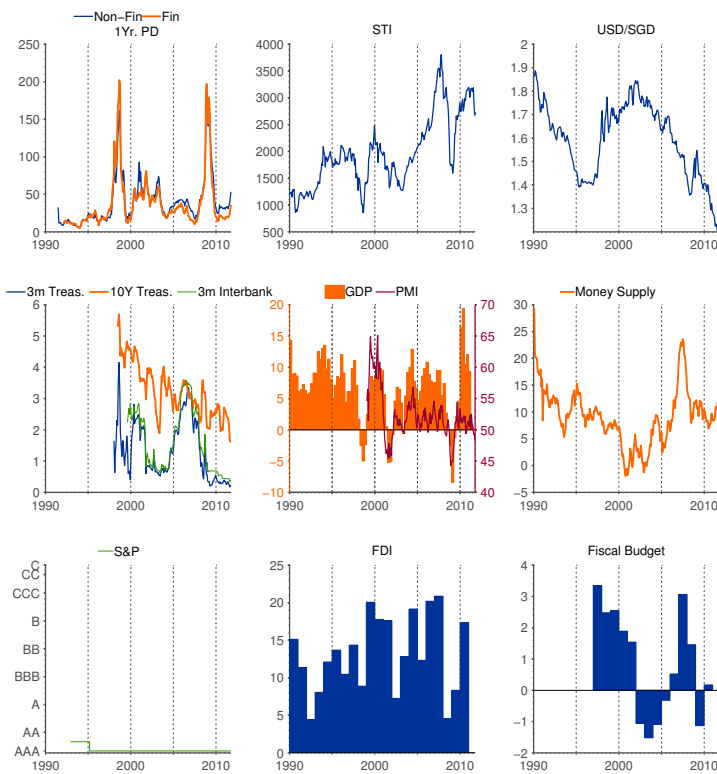
Norway	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	51.86	36.78	38.74	50.35	70.75
1Yr. PD, Fin.	36.13	38.23	49.74	52.64	78.33
OBX Price	293.6	335.3	339.8	310.5	258.6
USD/NOK	5.88	5.82	5.54	5.39	5.87
3m Treas. Yield (%)	2.28	2.20	2.25	2.33	1.76
10Y Treas. Yield (%)	3.30	3.72	3.83	3.41	2.38
3m Interbank (%)	2.60	2.60	2.67	2.92	3.03
GDP (YoY%)	-1.2	1.2	-0.1	0.3	-
OECD CLI	99.72	100.10	99.73	99.65	99.83*
PMI	52.9	54.3	57.4	56.3	54.8
PPI (YoY%)	19.7	23.9	21.4	14.4	15.3
Money Supply (YoY%)	3.8	5.3	7.4	7.0	6.0*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	23.66	23.49	17.14	21.37	50.03
FDI (%GDP)	-	2.83	-	-	-
Fiscal Budget (%GDP)	-	10.52	-	-	-



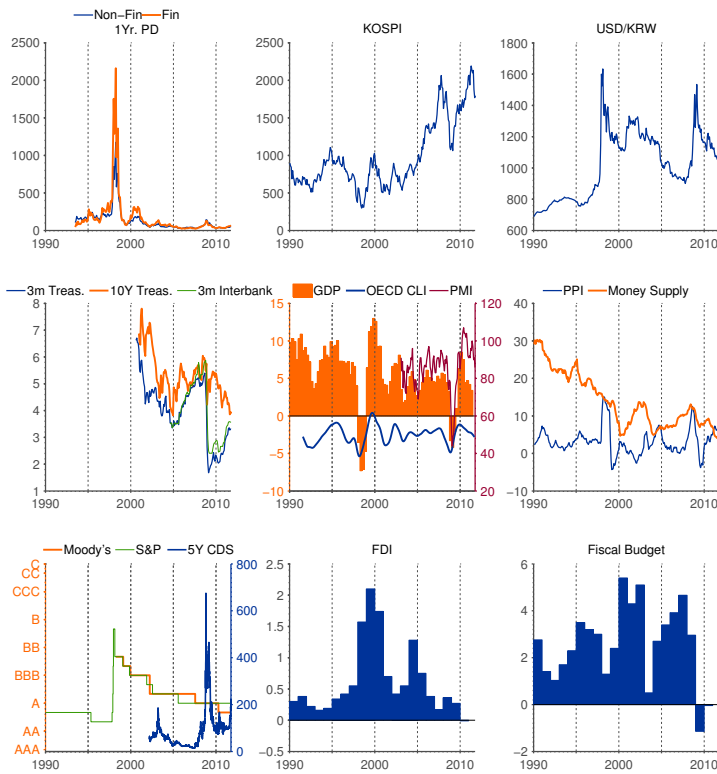
Philippines	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	37.48	43.04	42.06	36.08	34.78
1Yr. PD, Fin.	47.77	51.90	54.36	44.85	49.44
PSEi	4100	4201	4055	4291	4000
USD/PHP	43.85	43.80	43.36	43.38	43.77
3m Treas. Yield (%)	4.10	1.20	1.04	2.90	2.75
10Y Treas. Yield (%)	6.07	5.80	6.98	6.41	5.86
3m Interbank (%)	4.13	1.06	2.00	3.75	2.38
GDP (YoY%)	6.3	7.1	4.6	3.4	-
PPI (YoY%)	-7.0	-5.9	-0.7	2.1	0.5*
Money Supply (YoY%)	10.50	10.64	10.26	11.37	9.38*
Sov. Rating, Moody's	Ba3	Ba3	Ba3	Ba2	Ba2
Sov. Rating, S&P	BB-	BB	BB	BB	BB
5Y CDS (bps)	139.3	127.6	133.1	138.7	256.6
FDI (%GDP)	-	0.86	-	-	-
Fiscal Budget (%GDP)	-	-3.49	-	-	-



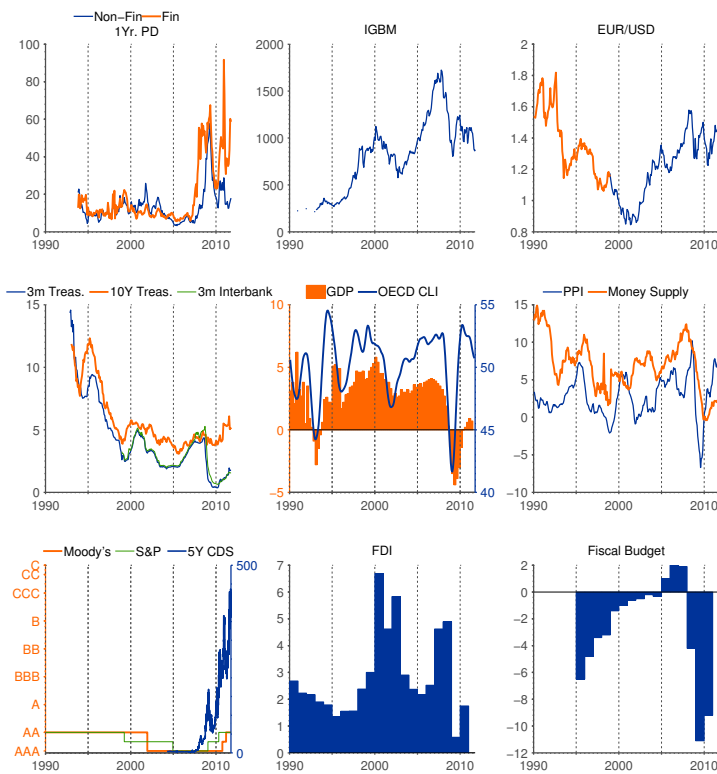
Portugal	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	28.47	38.80	39.84	34.01	60.63
1Yr. PD, Fin.	11.70	18.17	25.82	23.01	68.45
PSI General	2656	2722	2789	2774	2292
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	2.68	3.57	3.01	6.82	6.78
10Y Treas. Yield (%)	6.30	6.60	8.41	10.90	10.93
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	1.3	1.1	-0.4	-0.9	-
OECD CLI	101.85	102.59	101.91	99.71	97.98*
PPI (YoY%)	4.4	4.9	7.0	5.8	5.5*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	A1	A1	A3	Baa1	Ba2
Sov. Rating, S&P	A-	A-	BBB-	BBB-	BBB-
5Y CDS (bps)	409.6	499.6	579.6	744.8	1109.6
FDI (%GDP)	-	0.65	-	-	-
Fiscal Budget (%GDP)	-	-9.10	-	-	-



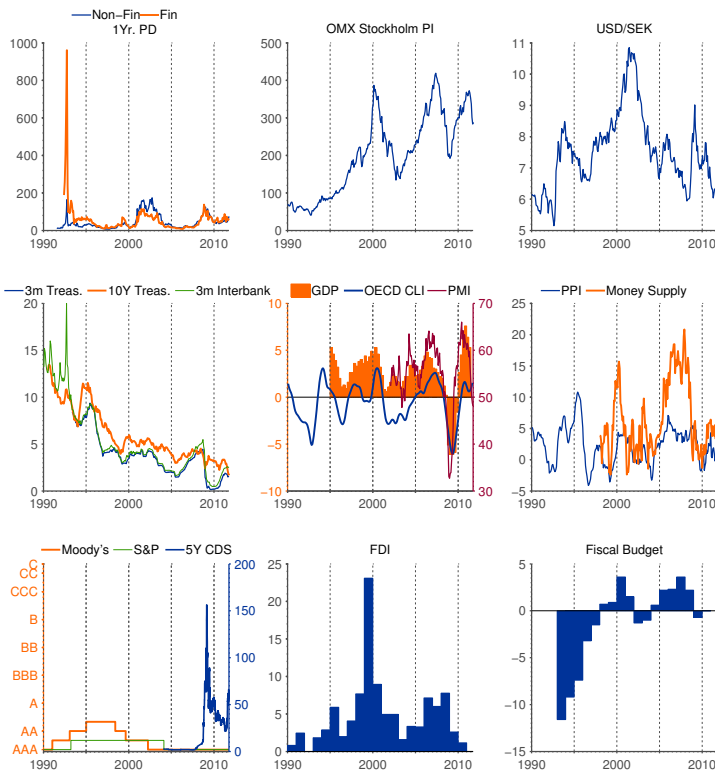
Singapore	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	31.65	31.99	33.40	34.21	53.20
1Yr. PD, Fin.	19.20	17.64	20.45	20.51	36.00
STI	3098	3190	3106	3120	2675
USD/SGD	1.32	1.28	1.26	1.23	1.31
3m Treas. Yield (%)	0.30	0.39	0.25	0.32	0.22
10Y Treas. Yield (%)	2.02	2.71	2.48	2.31	1.62
3m Interbank (%)	0.51	0.44	0.44	0.44	0.38
GDP (YoY%)	10.5	12.0	9.3	0.9	-
PMI	49.5	50.7	50.1	50.4	48.3
Money Supply (YoY%)	7.8	8.4	8.6	10.6	11.3*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
FDI (%GDP)	-	17.35	-	-	-
Fiscal Budget (%GDP)	-	0.17	-	-	-



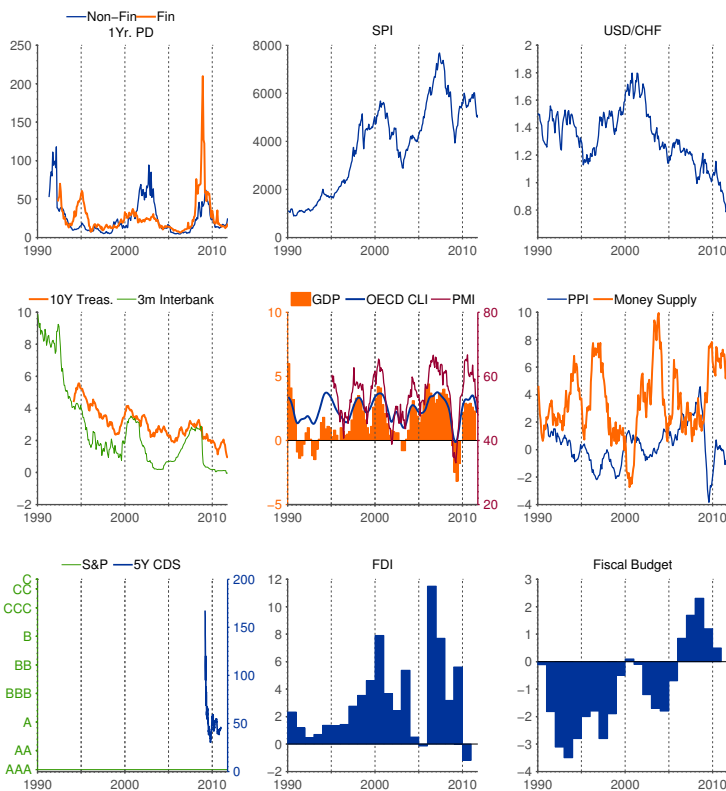
South Korea	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	33.66	32.35	45.12	41.94	51.58
1Yr. PD, Fin.	32.75	33.65	45.63	56.81	69.21
KOSPI	1873	2051	2107	2101	1770
USD/KRW	1140	1126	1097	1068	1178
3m Treas. Yield (%)	2.38	2.51	3.04	3.32	3.31
10Y Treas. Yield (%)	4.11	4.52	4.48	4.29	3.95
3m Interbank (%)	2.67	2.80	3.37	3.56	3.57
GDP (YoY%)	4.4	4.7	4.2	3.4	-
OECD CLI	102.32	101.35	101.04	99.96	98.78*
PMI	104.0	91.0	96.0	97.0	86.0
PPI (YoY%)	4.0	5.3	7.3	6.2	6.6*
Money Supply (YoY%)	7.7	6.9	4.7	4.1	4.6*
Sov. Rating, Moody's	A1	A1	A1	A1	A1
Sov. Rating, S&P	A	A	A	A	A
5Y CDS (bps)	100.8	95.6	101.1	102.9	215.2
FDI (%GDP)	-	-0.01	-	-	-
Fiscal Budget (%GDP)	-	-0.04	-	-	-



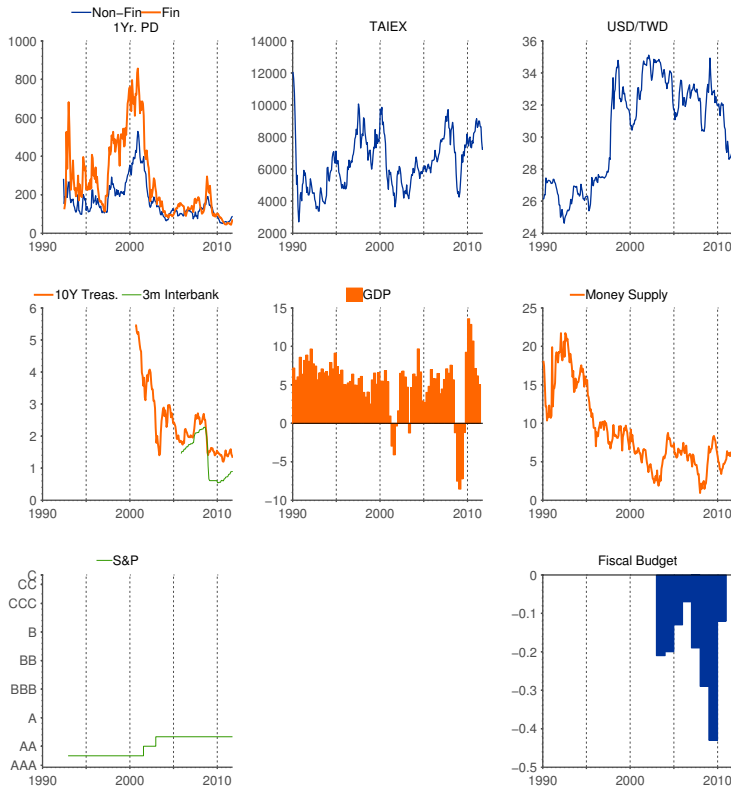
Spain	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	26.28	23.13	14.82	12.57	17.95
1Yr. PD, Fin.	45.36	73.36	39.21	36.17	58.65
IGBM	1085	1004	1079	1050	863
EUR/USD	1.36	1.34	1.42	1.45	1.34
3m Treas. Yield (%)	1.00	1.18	1.27	1.40	1.75
10Y Treas. Yield (%)	4.12	5.45	5.30	5.45	5.14
3m Interbank (%)	0.89	1.01	1.24	1.55	1.55
GDP (YoY%)	0.2	0.6	0.9	0.7	-
OECD CLI	102.51	102.49	102.10	101.16	100.72*
PPI (YoY%)	3.4	5.3	7.8	6.7	7.1*
Money Supply (YoY%)	1.2	1.7	2.2	2.0	2.7*
Sov. Rating, Moody's	Aa1	Aa1	Aa2	Aa2	A1
Sov. Rating, S&P	AA	AA	AA	AA	AA-
5Y CDS (bps)	229.82	349.51	233.46	269.91	382.24
FDI (%GDP)	-	1.75	-	-	-
Fiscal Budget (%GDP)	-	-9.20	-	-	-



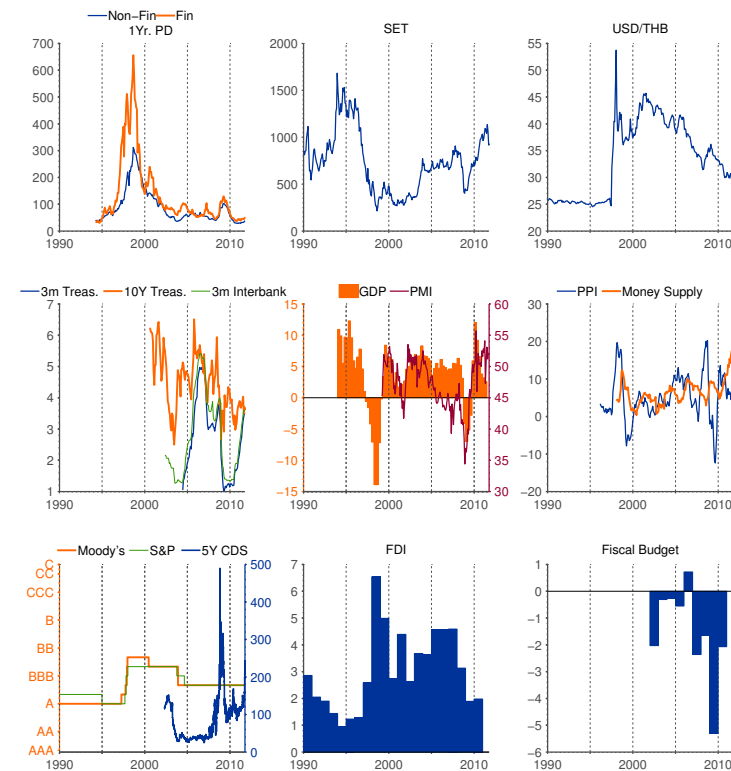
Sweden	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	38.77	46.79	65.25	43.37	75.10
1Yr. PD, Fin.	50.04	65.84	87.22	73.26	63.08
OMX Stockholm PI	342.8	368.5	364.3	353.9	283.6
USD/SEK	6.74	6.71	6.32	6.33	6.87
3m Treas. Yield (%)	0.58	1.35	1.70	1.80	1.55
10Y Treas. Yield (%)	2.52	3.27	3.35	2.90	1.74
3m Interbank (%)	1.28	1.95	2.39	2.48	2.51
GDP (YoY%)	6.6	7.6	6.4	5.3	-
OECD CLI	103.25	102.30	101.20	101.82	103.05*
PMI	63.3	60.2	58.6	52.9	48.1
PPI (YoY%)	2.6	4.3	1.7	-0.2	0.9*
Money Supply (YoY%)	5.82	6.41	5.39	5.54	6.24*
Sov. Rating, Moody's	Aaa	Aaa	Aaa	Aaa	Aaa
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	33.60	34.02	26.83	27.12	61.49
FDI (%GDP)	-	1.15	-	-	-
Fiscal Budget (%GDP)	-	0.00	-	-	-



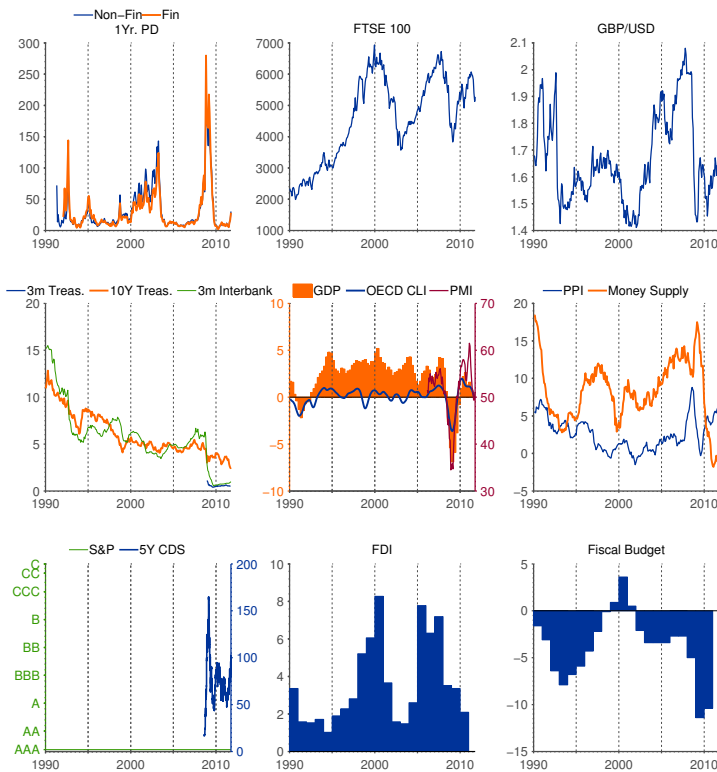
Switzerland	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	12.85	13.28	16.95	16.10	24.91
1Yr. PD, Fin.	18.80	16.11	14.95	12.13	18.14
SPI	5595	5791	5792	5685	5006
USD/CHF	0.98	0.94	0.92	0.84	0.91
10Y Treas. Yield (%)	1.40	1.72	1.96	1.73	0.94
3m Interbank (%)	0.12	0.11	0.12	0.11	-0.04
GDP (YoY%)	2.8	2.9	2.6	2.3	-
OECD CLI	102.75	103.75	103.85	101.12	98.63*
PMI	60.2	61.2	59.3	53.4	48.2
PPI (YoY%)	0.1	0.1	-0.1	-0.8	-1.8*
Money Supply (YoY%)	6.64	7.02	6.81	5.18	7.58*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	41.63	45.52	46.51*	-	-
FDI (%GDP)	-	-1.19	-	-	-
Fiscal Budget (%GDP)	-	0.50	-	-	-



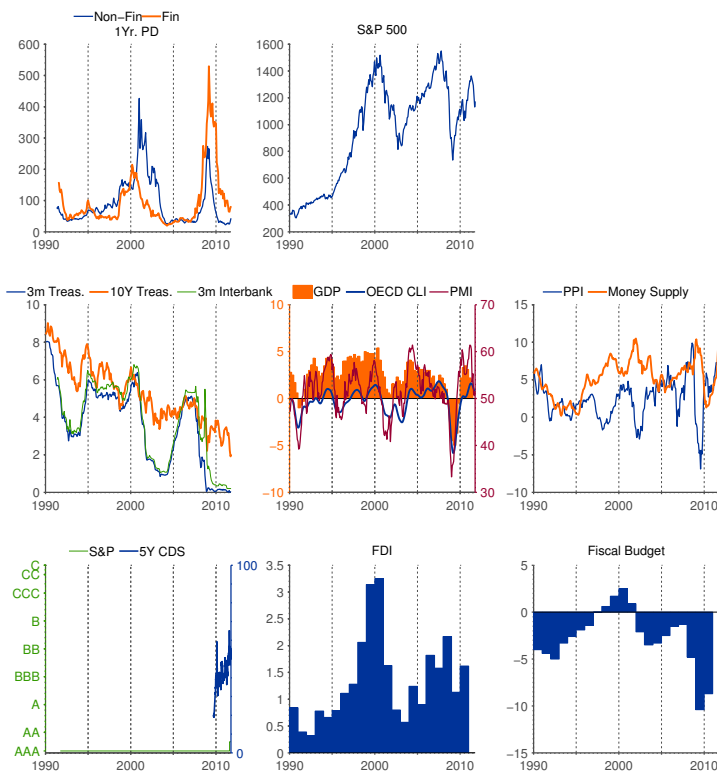
Taiwan	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	56.99	60.50	57.71	67.49	88.17
1Yr. PD, Fin.	53.94	45.58	52.48	45.52	72.02
TAIEX	8238	8973	8683	8653	7225
USD/TWD	31.24	29.30	29.41	28.72	30.48
10Y Treas. Yield (%)	1.20	1.55	1.36	1.55	1.38
3m Interbank (%)	0.60	0.72	0.73	0.82	0.90
GDP (YoY%)	10.69	7.13	6.16	5.02	-
Money Supply (YoY%)	4.72	5.34	5.93	5.87	5.78*
Sov. Rating, S&P	AA-	AA-	AA-	AA-	AA-
Fiscal Budget (%GDP)	-	-0.12	-	-	-



Thailand	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	29.87	28.20	28.52	32.68	38.82
1Yr. PD, Fin.	37.20	42.13	38.44	45.45	52.04
SET	975	1033	1047	1041	916
USD/THB	30.35	30.06	30.28	30.73	31.19
3m Treas. Yield (%)	1.67	1.97	2.50	3.06	3.50
10Y Treas. Yield (%)	3.09	3.73	3.71	3.88	3.69
3m Interbank (%)	1.91	2.15	2.70	3.29	3.60
GDP (YoY%)	6.6	3.8	3.2	2.6	-
PMI	50.6	51.6	54.1	53.1	52.2*
PPI (YoY%)	11.61	4.68	5.86	4.52	5.62
Money Supply (YoY%)	9.92	10.92	13.16	16.30	17.47*
Sov. Rating, Moody's	Baa1	Baa1	Baa1	Baa1	Baa1
Sov. Rating, S&P	BBB+	BBB+	BBB+	BBB+	BBB+
5Y CDS (bps)	102.4	97.5	115.4	132.4	237.0
FDI (%GDP)	-	1.98	-	-	-
Fiscal Budget (%GDP)	-	-2.07	-	-	-



United Kingdom	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	9.84	8.94	11.88	5.51	30.32
1Yr. PD, Fin.	10.15	9.13	10.80	5.17	28.27
FTSE 100	5549	5900	5909	5946	5128
GBP/USD	1.57	1.56	1.60	1.61	1.56
3m Treas. Yield (%)	0.57	0.57	0.63	0.54	0.53
10Y Treas. Yield (%)	2.95	3.40	3.69	3.38	2.43
3m Interbank (%)	0.73	0.76	0.82	0.83	0.95
GDP (YoY%)	2.6	1.3	1.6	0.6	-
OECD CLI	102.30	102.29	102.06	100.95	99.72*
PMI	53.5	58.7	56.7	51.4	51.1
PPI (YoY%)	3.8	4.2	5.6	5.8	6.3
Money Supply (YoY%)	1.1	-1.6	-1.3	-0.7	-0.6*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AAA
5Y CDS (bps)	65.70	72.41	54.75	60.70	94.41
FDI (%GDP)	-	2.09	-	-	-
Fiscal Budget (%GDP)	-	-10.40	-	-	-



United States	2010		2011		
	Q3	Q4	Q1	Q2	Q3
1Yr. PD, Non-Fin. (bps)	29.55	25.55	26.29	24.89	43.20
1Yr. PD, Fin.	131.13	105.24	99.87	64.61	81.85
S&P 500	1141	1258	1326	1321	1131
3m Treas. Yield (%)	0.15	0.12	0.09	0.01	0.02
10Y Treas. Yield (%)	2.51	3.29	3.47	3.16	1.92
3m Interbank (%)	0.35	0.40	0.35	0.20	0.20
GDP (YoY%)	3.5	3.1	2.2	1.6	-
OECD CLI	100.56	102.07	103.24	102.61	101.51*
PMI	55.3	58.5	61.2	55.3	51.6
PPI (YoY%)	3.9	3.8	5.6	7.0	6.5*
Money Supply (YoY%)	2.9	3.3	4.9	6.0	10.3*
Sov. Rating, S&P	AAA	AAA	AAA	AAA	AA+
5Y CDS (bps)	46.40	42.01	40.97	50.36	51.41
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.

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	–

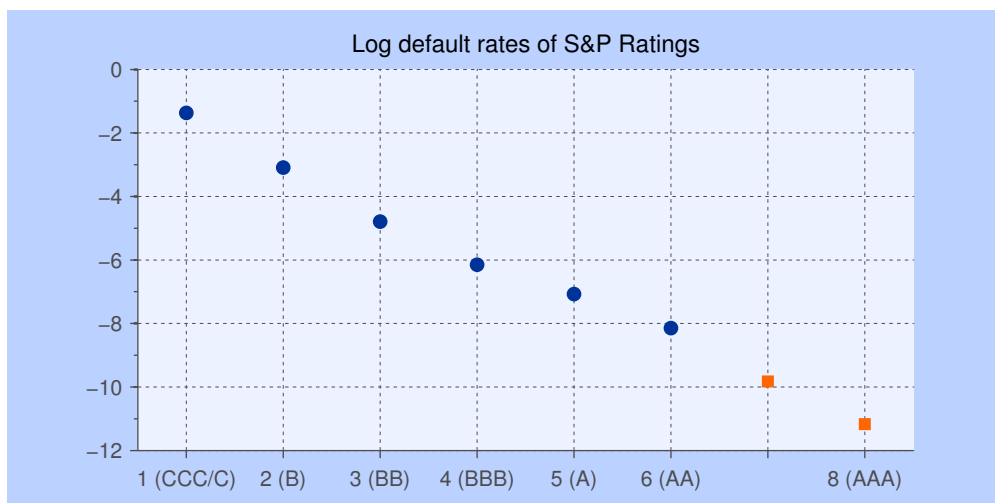
Computing the boundaries between different PDiR classes: The blue circles in the graph below indicate the logarithm of the ADR for S&P firms with ratings from AA down to CCC/C. There have been no defaults within one year for S&P rated AAA firms.

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 Rating 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 Rating 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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