



BANK OF ENGLAND

Speech

Market finance and financial stability: will the stretch cause a strain?

Speech given by

Alex Brazier, Executive Director for Financial Stability Strategy and Risk, Bank of England

The Brevan Howard Centre for Financial Analysis, Imperial College Business School,
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We've now passed the tenth anniversary of the onset of the global financial crisis; a crisis created by a fragile financial system out of a correction in the US housing market.

What could have been an economic downturn was turned into a disaster.

In this country alone, more than one million people lost their jobs. And the legacy of those effects lives on today in lower levels of national income. Looking back over the decade, the economic cost of the crisis has been equivalent to £20,000 per person in the UK.¹

Such crises should be remembered, and their anniversaries marked, because forgetting them risks repeating them.

In this country, Parliament hard wired the memory of the crisis into the institutional fabric. It tasked the Bank of England with meeting a 'macroprudential' objective.

Cutting through the language of the statute, it is to guard against the financial system disrupting growth of the wider economy; to guard against it turning corrections and downturns into crises and disasters.

The immediate task was to repair the banking system so that it would not be crippled by future economic shocks - forcing it to cut back sharply on credit supply. We now have standards in place that ensure banks can keep lending through economic shocks more severe than the financial crisis.

Next was to guard against the financial system enabling other parts of the economy to become too highly indebted. It's well established that high levels of mortgage debt magnify economic downturns as high-debt households cut back sharply to keep paying the mortgage.² That's why we've set limits on high loan to income mortgage lending.

Because we are tasked with achieving a general outcome, not with implementing a specific rule book or even a set of principles, we have a duty to adapt regulation as risks change and the financial system evolves. We must fight the next war as well as the last one.

The Brevan Howard Centre's own mission statement is clear on this: "Future research may show that the current focus on capital and liquidity regulation is inadequate. Among the topics that require further research are panics, asset price bubbles, contagion, deficiencies in the financial architecture, and foreign exchange mismatches."

¹ Financial crises often lead to a long-run reduction in GDP, with a persistent decline in output relative to pre-crisis trends. Staff estimates based on the impact of historical financial crises in a sample of advanced economies, reported in Brooke et. al. (2015), suggest that the average cost of a financial crisis has been 73% of GDP, which translates to a cost of roughly £ 20,000 per capita if a financial crisis had taken place in 2016.

² For example, Bunn and Rostom (2015) find that, during the financial crisis, highly indebted UK households, with loans four times larger than their income, reduced their consumption relative to income around three times more than UK households with loans between one or two times their income.

So today I want to consider one of these next frontiers for macroprudential policy: market-based finance of companies.

The nature of corporate finance has shifted decisively in the past decade. Since the crisis, nearly all net finance raised by private companies in the United Kingdom has been through the issuance of equity and bonds.

Market-based finance has been the spare tyre to what was, after the crisis, a punctured banking system, unable to lend. The scale of businesses borrowing through issuing bonds is now on a par with their borrowing from UK banks.

The shift in the balance of corporate finance should be a positive for stability. A more diverse system can be a safer system. The challenge for macroprudential policy is to ensure this source of finance develops sustainably and safely, so that its users can have confidence in the service they get from it, and the wider economy need not fear it.

That challenge is not a distant one. Corporate credit markets are stretched. Finance is cheap because bond investors seem to be less concerned about the safety of their investments.

So in this speech, I want to consider the degree to which these markets have become stretched, and how well conditioned the wider economy is for that stretching. Will it cause a strain?

1. When do stretched asset prices (not) strain the wider economy?

Before we turn to the world today, I'd like to frame the issue.

I start from the point that asset prices are not - horror of horrors - always a reflection of the rest of the economy.³

They can be stretched above levels supported by 'fundamentals' as investors squeeze the compensation they get for the risks they take. When they later adjust, some investors have a bad day and others a good one, but the ups and downs of asset markets don't have to be a problem for the wider economy.

For stretched asset prices to strain the economy, I think one or more of the following channels needs to be active. All share the common theme of the wider economic body not being fit enough to cope.

³ See Claessens and Kose (2017) for a review.

i) *The level of debt in the corporate sector comes to rely on stretched asset prices.*

That might be because corporations have taken advantage of stretched asset prices (and meagre returns for investors) to raise their debt levels. They might be reliant on that position continuing in order to sustain their low debt servicing burdens or to have sufficient collateral to secure their debts.

An adjustment of market prices can expose a debt overhang as debts need to be refinanced at higher interest rates. The result can be dangerous to the wider economy: defaults and deleveraging, holding back corporate spending.

The corporate sector can become reliant on stretch in other asset markets too. Three quarters of small and medium-sized companies in Britain use their own commercial property as collateral to secure bank loans. If they secure loans at stretched commercial property values, they can be exposed to any adjustment. That's why falling commercial property prices lead to lower investment across the economy.⁴

That channel can be pernicious if companies investing in commercial property at the top of the cycle are forced to reduce debt as prices fall and they break their loan covenants. They can be forced into sales of property, driving prices down even further and making life even more difficult for those companies in the wider economy that have secured their debts on their property.

ii) *The banking system is exposed to an adjustment of asset prices*

An adjustment of market prices can weaken banks, forcing them to cut back their lending to the wider economy.

That might be because they hold assets directly in their trading books. For example, the £12bn of credit trading losses of RBS in 2008 amounted to 40% of the total net accounting losses of RBS between 2007 and 2010.⁵

Or they might be exposed to a corporate sector that, if asset prices adjusted, would have a debt overhang. Our stress tests show that losses on corporate loans can account for more than a third of banks' losses in an economic shock, even though they account for only a fifth of banks' loans.

iii) *Markets lack resilience and so amplify adjustments*

There are myriad reasons why this can happen and I'll discuss some live examples later.

⁴ Research by Bahaj, Foulis and Pinter (2016) suggests that a 10% fall in UK commercial real estate prices is associated with a 1% decline in firm investment.

⁵ See the report by the board of the [Financial Services Authority](#) (2011), 'The failure of the Royal Bank of Scotland', for additional information.

When markets amplify price adjustments, the other channels become more powerful. And there is also an important direct effect on the economy: the cost of new finance to the wider economy is driven up and its availability driven down.

In extreme cases, markets can become dysfunctional and effectively shut out access to finance. UK high yield bond issuance markets were closed for four consecutive quarters during the global financial crisis of 2008-9.

Some implications for where to focus attention

These conditions under which stretched asset prices can pose risks to the wider economy help to explain why adjustments in equity markets tend to have far fewer economic consequences than those in bond and property markets.

It's very difficult to create a corporate debt overhang with equity! The company has no obligation to repay. Banks don't tend to hold equity on their balance sheets. It is not generally used as collateral. And its markets are deep, liquid and typically resilient.

It's why the dotcom bubble had much smaller economic consequences than the financial crisis even though, on some estimates, the underlying market correction (equity prices in the former, property prices in the latter) was similar.⁶

So despite the headline-grabbing run-up in equity prices and subsequent signs of adjustment in the past week or so, I intend to focus here on the markets associated with corporate credit: bond markets and collateral - commercial property - markets. And consistent with my framing above, I'll look at four questions:

First, have corporate bond and commercial property prices become stretched? My answer today is as our November Financial Stability Report documented: yes.

Second, has corporate debt come to rely on those stretched valuations? Not so in the UK today, but developments in the rest of the world show that can't be taken for granted.

Third, is the banking system exposed to an adjustment in asset prices? Our stress tests show it has the capital strength to keep lending through severe UK and global market adjustments.

And finally, are these markets resilient or are they prone to amplifying adjustments?

⁶ During his speech on April 2012, '[Some reflections on the crisis and the policy response](#)', Ben Bernanke proposed that the aggregate decline of house prices had eliminated nearly \$7 trillion in paper wealth compared to the more than \$8 trillion eliminated from the fall of stock prices from the dot-com crash.

Here we'll need to change gear and delve into some detail of the financial architecture to spot things that might be what your mission statement calls 'deficiencies'. In the process, I hope to give you some research interests.

Because my short answer is that some new developments have raised questions that we should, and are, exploring by simulating markets under stress.

Let's look at each of these in a bit more detail.

2. Are credit and commercial property markets stretched?

First, a word about burden of proof.

The macroprudential objective – guard against the financial system disrupting the wider economy – means we are not in the business of forecasting; we are in the business of asking 'what could go wrong?' rather than 'what is most likely to happen?'

It's in that spirit that we approach asset price risks, where one person's stretched price might be another's rational assessment of fundamentals. The question we ask is 'could they reasonably be judged to be stretched?'

In **global corporate bond markets**, the answer is yes. As we highlighted back in November, corporate credit appears priced for perfection.

Investors expect short-term risk-free interest rates to stay pretty low. And they are demanding little compensation for that being wrong or for the possibility of corporate default.

Conviction that interest rates will remain low has meant the 'term premium' investors' demand for holding longer-dated fixed income bonds has rarely been lower.

Conviction that growth will be steady and corporations healthy has meant the credit risk premium investors demand for holding corporate bonds has compressed.

All in, spreads between corporate bond yields and the estimated path of expected short-term interest rates are below pre-crisis levels.

So it's not just that, as in recent weeks, corporate bond yields are at risk from the – hardly radical – possibility that sustained global growth might mean higher global interest rates.

They are also at risk of a reappraisal of how uncertain the outlook is for interest rates and corporate health.

The compression of bond yields has been especially pronounced at the riskier ('high yield') end of the market. The difference between yields on high-yield and investment-grade bonds has shrunk to levels seen prior to the global financial crisis.

However you look at it, it's cheap for companies to borrow in bond markets. Bond prices are stretched as investors seem to have become less concerned about their safety.

The picture in the **UK bond market** has an added nuance.

Equity prices for UK-focussed companies have underperformed international equity markets as investors have factored in perceived lower, and downside risks to, future growth.⁷

And yet, sterling corporate bond markets are stretched like other bond markets.⁸

To get a better read on how stretched, we need to account for the lengthening over time in the average duration of sterling corporate bonds and the fall in the average credit rating (which other things equal should raise risk premia).

When we do that, we see that the joint compensation investors are demanding for interest rate and credit risk is...

...zero.

There is an inconsistency.

If investors are confident in risk-free rates remaining low because they see downside risks to the economy, it seems odd that that they should at the same time be demanding less, rather than more, compensation for credit risk.

There's more than a flavour of interest rate cake having and credit risk cake eating.

The picture in parts of the **UK commercial property market** is similar.

At the UK-wide level, commercial property prices rest on persistently low interest rates but at the same time, they're factoring in typical rental growth prospects and degree of uncertainty around them.

⁷ UK government bond yields have also fallen relative to other sovereigns. As my colleagues Ben Broadbent and Gertjan Vlieghe have explained, downside risks to growth can be expected to increase the attractiveness of risk-free assets (gilts) relative to riskier assets (equities). See Vlieghe, G (2017), ['Real interest rates and risk'](#); Also Broadbent, B (2014), ['Monetary policy, asset prices and distribution'](#);

⁸ This might reflect that the sterling investment-grade corporate bond index includes a significant amount of issuers that are not UK-based and therefore not necessarily UK-focused. But internal analysis suggests that in recent years the spreads on sterling corporate bonds issued by UK-focused companies have tended to track the broader sterling investment-grade corporate bond market.

It seems unlikely that rates can be so persistently low without either weaker growth prospects or more uncertainty.

In London's West End Office markets, the picture is particularly stark. Even if the magic combination of persistently low rates and historically typical rental prospects comes true, valuation methodologies similar to those being developed by the industry point to prices 10% below today's level.

Precisely why these markets have become stretched is impossible to know for sure, but I'd caution against placing too much weight on monetary policy as the primary or underlying explanation.

A range of underlying forces have driven down natural rates of interest, including demographics, perceived downside risks, expected productivity growth.⁹

Monetary policy may have been a prominent actor, but it was reading a script set by these economic forces. That script has meant that the size of the global stock of bonds yielding more than 4% has fallen to only about \$2trn; in 2007 it was \$16trn.

In that environment it may be just too tempting to succumb to the illusion that a higher yielding asset isn't a higher risk asset. After all, recent performance has been good. Corporate insolvencies have been close to pre-crisis lows and, of course, interest rates have been low and stable for very many years.

This 'reach for yield' explains why fixed income investors have been prepared to take on more risk to get returns just a little closer to what they had been used to. It helps to explain why compensation for risk on higher-yield bonds has fallen relative to that on investment grade bonds, which in turn has fallen relative to the return on safe assets.

Regardless of what caused the stretch, we need to address the question of whether the economy is fit enough to deal with it.

3. Is the corporate sector reliant on these stretched valuations?

There is better news in this regard. Despite recent headline examples of indebted companies, Britain is among a small group of major economies not to have seen overall corporate debt increase as a share of GDP over the past decade.

Within that, amongst companies investing in commercial property, debt levels are well below pre-crisis levels and have remained static for four years. Rising property prices have been financed with more equity, not debt.

⁹ This was comprehensively covered in a recent speech by Jan Vlieghe. See Vlieghe, G (2017), '[Real interest rates and risk](#)';

Stretched asset prices have not been matched with less prudent financing.

But developments in the world economy show that we cannot take for granted that it will stay that way.

The IMF Global Financial Stability Report showed how, across the G20, appetite of investors for risk has loosened financing conditions and propelled nonfinancial corporate debt levels to new highs.

Even excluding China (where corporate debt developments deserve much more attention than I can give them here), between 2006 and 2016 emerging market economies in the G20 saw corporate debt increase from 42% to 57% of GDP, and advanced economies saw it go from 80% to 86% of GDP.

In the United States, levels of (non-financial) corporate sector debt have been testing previous highs.

Moreover, averages can mask important underlying shifts. Leveraged lending in the US reached new highs last year.¹⁰ Net debt to EBITDA ratios have been trending upwards in recent years and underwriting standards have been loosening. Three quarters of issuance is now 'covenant-lite'.¹¹

All this goes to show that it's more than a hypothetical that levels of corporate debt can come to rely on stretched credit markets and investors' lack of concern for their own safety.

And despite the good starting point, there are some quiet signals of the need to be alert in the UK. The level of debt relative to corporate profits has started slowly rising again.

The evolution of corporate debt levels will bear close scrutiny in this market environment.

4. Is the banking system exposed to an adjustment of asset prices?

The answer here is given by our stress test last year: Britain's major banks are resilient to an economic and market stress more severe than the global financial crisis.

The 2017 stress test subjected the banks to simultaneous UK and global recessions, a deep market shock and stressed estimates of conduct redress fines.

The test included a sharp adjustment in corporate credit markets and commercial property markets. Sterling investment grade corporate bond yields were assumed to snap up almost 800bps as long-term gilt yields rose by over 500bps and credit spreads blew out. Commercial property prices were assumed to fall by 40%.

¹⁰ These are typically syndicated loans to large companies which have either high levels of indebtedness, a non-investment grade credit rating, or are owned by a private equity sponsor. For more information, see pages 30-31 of the November [Financial Stability Report](#).

¹¹ As a percentage of institutional leveraged loan issuance.

More than 5% of UK and global business loans would have been impaired over the first two years of the test period.

With banks having substantially reduced their exposures in the past decade, largely by reducing their lending to commercial property companies, the resulting losses amounted 'only' to £50bn. And following the shrinking of banks' trading books in the past decade, their losses on trading assets totalled 'only' £30bn.

The losses resulting from this, and other parts of the stress scenario, would have wiped out the entire banking system in 2007.

However, major UK banks have tripled their capital strength. Even after a stress like this, they have more than twice the capital they had going in to the crisis. They can now absorb losses like this and continue to supply credit to the real economy.

5. Are bond markets resilient or might they amplify adjustments?

This is the final channel through which stretched markets could affect the wider economy. It would magnify any effect on corporate and bank balance sheets. And it could affect the cost of finance directly, as market interest rates are driven up and credit availability tightened.

We have a duty to spot new market developments that could drive this and to simulate, rather than wait for the empirical proof, because by that point it can be too late.

And as your mission statement acknowledges, we must move beyond the causes of market fragility in the last crisis. The resilience of markets is not guaranteed by the safety of the banking system and other core intermediaries.

To do that, we're going to have to delve into some of the detail.

I'll highlight two areas where markets have evolved in ways that raise questions about their resilience, even if all the intermediaries are safe. They might mean investors aren't able to take the liquidity of markets for granted if they adjust.

In both cases, there is no proven problem for markets or the economy. Inquiries are, as the police like to say, ongoing. Through our market intelligence gathering, I'm pleased to say that market participants are helping with those inquiries. And I look forward to the contributions of this Centre too.

i) (Mis) use of volatility measures

Against a backdrop of relatively stable markets, some investors may have developed an appetite for betting that a range of markets, including bond markets, will remain stable.

That means selling options – effectively insurance against moves in market prices.

A put option, for example, is insurance against falling prices. An investor who buys this insurance is guaranteed a sale price for the asset insured, regardless of what happens to the market.

If prices are currently higher but then fall below the guaranteed price, an investor that wants to sell will incur some loss – think of this as the insurance excess – but the insurer will pay for the rest.

If markets stay stable, as the insurer is betting they will, no payout is made and the insurance collects a premium.

While markets are stable, it's a nice little earner for the insurer. With some investors reaching for yield, there are reports that it has become an increasingly popular way to generate some income.

Consistent with that, insurance premiums have fallen.

Implied volatility is a measure of that. It captures the level of market volatility in future at which the options being sold would be expected to break even. Lower implied volatility equates to lower insurance premiums for a given excess.

Across markets, implied volatility has recently been squeezed to near all-time lows.

So far, so esoteric.

However, two possible knock-on effects make this worth exploring further.

First, to some degree betting on low volatility could become self-fulfilling.

Dealers who buy the options that are being sold by investors have an exposure to market moves. That exposure gets bigger as market prices move close to option strike prices. When an option is close to being 'in the money' small moves in market prices have a big effect on its value.

This 'dynamic hedging' means dealers trying to hedge their positions need to buy more of the underlying asset as prices fall, and sell more as they rise. They can add a stabilising influence to markets.

As a result, the decision to sell cheap insurance can appear vindicated: betting on low volatility begets low volatility.

Second, measures of actual and implied volatility are often used as an indicator of risk to inform investment decisions. When they're low, the world appears less risky, so less compensation appears to be needed for risk.¹²

The trouble is that these are not measures of risk. They are a reflection of the risk appetite of those selling insurance.

Taking on more risk because implied volatility is low is the equivalent of ignoring the road conditions and driving faster because your insurance got cheaper as a herd of new entrants flooded the car insurance market.

When accidents start to increase, the whole thing can go into reverse.

Those who had been selling insurance can incur losses. What might have looked like a profitable insurance business won't do so any more. The terms on insurance can shift abruptly. The result: driving speeds slow down to a snail's pace.

In markets, this means price adjustments, whatever triggered them, might be followed by sharp withdrawal of cheap insurance...

...which removes the need for dealers to act as a stabilising influence...

...Leading to greater market volatility....

...And sharp reduction in risk appetite.

Market moves are amplified.

These dynamics are difficult to size. They may or may not be of consequence.

Exploration is needed about behaviour in some of the furthest corners of the system in order to take a firmer view on the form and extent of this fragility. As the Office of Financial Research in the United States noted, "Available data on investor portfolios are not sufficient to assess this...adequately".¹³

That's one reason why the Bank of England's Financial Policy Committee has commissioned an in-depth review of how the use of derivatives in the non-bank financial system may be shaping the dynamics of markets.¹⁴

¹² Investors who base decisions on value-at-risk ('VaR') and assess those risks using market measures can be guided into thinking their portfolio is safer. In some cases, this general behaviour is an explicit investment strategy: some investment funds explicitly try to keep the implied volatility of their portfolio at a fixed level.

¹³ See the market monitor of the Office of Financial Research for the second quarter of 2017: '[The volatility paradox: tranquil markets may harbour hidden risks](#)'.

We need to keep pace. And investors should too. Accidents can be avoided if driving speeds are based on the road conditions ahead rather than the price of insurance.

ii) Liquidity mismatch in corporate bond markets

The second development raising questions about market resilience is actually a combination of two changes in recent years.

First, market-makers ('dealers') have become less active in their market making. This matters because they play an important role in warehousing bonds between the time a seller wants to sell and the point at which a willing buyer can be found.

Our research suggests that, in response to asset sales by bond funds, dealers are less willing to see their inventories of corporate bonds increase. The flipside is that market prices respond more to asset sales than they did, to draw in buyers in a short timeframe.¹⁵

Post-crisis limits on bank leverage may be a driver of this. If so, then a generally lower level of market-making activity may be the price paid for greater resilience of systemic institutions and their critical activities.¹⁶

The issue is not whether or not to row back on those regulatory standards, it's to make sure the system adapts fully to corporate bond markets being generally less liquid and able to absorb asset sales.

In that context, the second development is the growth in the share of corporate bonds held in open-ended mutual funds, particularly those offering the possibility of redemption at just one day's notice.

The share of corporate bonds held in open-ended funds in the UK and the Euro Area has increased by 70%, and in the United States by 150%.¹⁷

The question here is whether structures with the shortest redemption notice periods could create a 'first-redeemer advantage' that encourages greater asset sales during market adjustments.

Why might that be a possibility? Typically investors are offered the 'net asset value' (NAV) of the fund when they redeem. This is calculated on market prices for the assets held in the fund. But the market prices of some assets are based - implicitly - on their typical sale period rather than on the period the fund might need to sell them over.

¹⁴ See page 54 of the November 2017 [Financial Stability Report](#).

¹⁵ See the December 2015 [Financial Stability Report](#), and '[Has corporate bond market liquidity fallen?](#)'

¹⁶ See page 27 of the July 2016 [Financial Stability Report](#).

¹⁷ Calculations based on sterling corporate bonds for the United Kingdom, private non-financial companies in the euro area and corporate and foreign bonds held in the United States. UK and euro area data from 2008 to 2017 H1. US data from 2008 to 2017Q1.

If a fund is selling assets in timeframes shorter than typically need to obtain the market price, then redemptions result in a transfer of value to redeeming from remaining investors. When investors think others might redeem, they might face an incentive to run to the exit.¹⁸

This isn't an issue in markets like equities where sale periods are typically shorter than the daily redemption term of the mutual fund. But for funds investing in corporate bonds and particularly less liquid assets like commercial property, it could be, in principle at least.

Unless it can be corrected through appropriate pricing arrangements in the fund, this structure might create an advantage to getting out first. Existing 'swing pricing' arrangements go some way to doing this but may not be sufficient to correct it fully.

The evidence suggests that investors in funds which offer short notice redemptions and that invest in less liquid assets tend to redeem more in response to a downturn in the funds' performance than those in more liquid funds. And the redemption behaviour of investors in bond funds seems to have become more sensitive as these markets have become less liquid.^{19, 20}

Drawing these developments together, it's possible that just as corporate bond markets have become less liquid, they may have become susceptible to greater selling pressure after a shock. We may have more of a mismatch of liquidity. That could amplify any price adjustment.

None of this is conclusive and serious problems have not been caused by this in the past. But we have a duty to take the possibility seriously – to ask 'could it happen?' With markets having evolved so much in the past decade, the absence of problems in the past is no guarantee for the future.

That's why we've been developing simulations of the impact of this liquidity mismatch. The asset management industry has been a constructive partner in this work. I hope we and this Centre can collaborate as we take this work forward.

There is much more to do, but our initial work suggests a case for exploring further, including by incorporating a range of other investors into the simulations and assessing the impact not just on bond markets but on the wider economy. You can expect to hear more from us as these efforts develop.

¹⁸ Chen, Q., Goldstein, I., Jiang, W., 2010. Payoff complementarities and financial fragility: Evidence from mutual fund outflows. *Journal of Financial Economics* 97, 239-262. In addition, Feroli, Kashyap, Shoenholtz and Shin (2014) describe an alternative mechanism creating the same effect based on how investors evaluate performance of funds relative to other funds. Concerns about standing out of the sample and seeing a decrease in assets under managements can drive herding behaviour among funds.

¹⁹ Goldstein, Jiang and Ng (2017) show that corporate bond funds experience greater outflows when they have more illiquid assets. One example of this is the behaviour of investors in Pimco's Total Return Funds in the aftermath of the departure of Bill Gross in 2014. In contrast to the other funds, the most liquid funds, such as Total Return Fund IV, did not see sharp redemptions.

²⁰ See pages 29-31 of the October 2017 [Global Financial Stability Report](#).

Conclusion

All of this is a far cry from the build-up to the financial crisis when nobody was asking “what could go wrong?”

We now have a mandate – a duty in fact – to ask that, so we can guard against the financial system disrupting the wider economy.

Our work is broadening out as the financial system evolves; from banks and mortgage lending to market-based corporate finance.

Growth of market based finance offers a big opportunity. There can be strength in greater diversity. And in the UK, we have the foundations and infrastructure to make markets here a global good.

To reap the economic rewards, it will need to develop safely and sustainably.

With credit markets and commercial property markets stretched, a broadening of our work is timely.

Britain’s corporate sector seems not to have become exposed to these stretched valuations. But that can’t be taken for granted, as developments elsewhere show.

And as markets develop, some questions need to be addressed about their resilience. The work of this Centre, in pursuit of its mission, can contribute to understanding of that. And I look forward to collaborating in future.

Because markets will from time to time be stretched. It’s important that the economic body remains fit enough to stretch without causing strains.