

## CLIMATE CHANGE AND FINANCIAL STABILITY

*With the support of the G20, the Financial Stability Board (FSB) has been exploring the potential impacts of climate change on financial stability. This work has identified three risks to financial stability: physical risk to property from increasingly severe weather events, liability risk to insurers if legal claims are made against carbon emitters, and transition risk if a policy change or climate event were to result in a sharp repricing of carbon related assets. Given the uncertainties around the future trajectory and impact of climate change, it is difficult to assess the magnitude of these risks.*



### *Transition Risks*

The third identified risk is the potential for a turbulent transition to a lower-carbon economy. As discussed above, limiting climate change will likely require significant disruptions to many industries, and investors may not be properly taking into account or pricing this risk. Consequently, it is possible that a sudden shock such as a new climate policy, a technological advancement, or a change in investor preferences could lead to a sharp reassessment of asset values for carbon intensive industries.

One particular risk is that companies could become saddled with a large amount of 'stranded' or unused resource assets. For instance, if renewable energies such as solar power were to become increasingly viable due to policy changes or technological advances, existing coal-fired power stations could become obsolete. The International Energy Agency (IEA; [2014](#)) estimates that if the world is to meet its target of limiting climate change to 2°C then at least US\$300 billion in fossil fuel production assets will be 'stranded'. Similarly, Ekins and McGlade ([2014](#)) estimate that about 30 per cent of oil reserves and 80 per cent of coal reserves would need to remain unutilised to meet the target.

BoE analysis suggests that, globally, companies in carbon-related industries such as natural resources, utilities, construction and industrial goods account for a third of equity and fixed income assets (Carney, [2015](#)). Consequently, their investors, many of whom are within the financial sector, could be severely impacted by a sudden shock to asset prices.<sup>3</sup> However, in some regions it is likely that the direct impact on banks would not be systemic. For instance, in the EU, banks are estimated to have about €460-480 billion in exposure to firms holding fossil fuel reserves or to fossil fuel commodities, only about 1.5 per cent of banks' total assets (Kuepper *et al*, [2014](#)). Australian banks' exposure to mining firms also appears relatively limited at about 2 per cent of total lending, and while it is difficult to assess exposure to a broader category of carbon intensive industries, together mining, manufacturing, and construction represent about 5 per cent of lending.

It is important to note that these transition risks are not put forward as an argument against policies or actions which work to reduce the risk of climate change. On the contrary, if transition is delayed, this will likely result in greater physical damage and transition risk in the future. It is argued instead that greater transparency by jurisdictions and corporations is required to ensure investors have a clear understanding of the path of transition and reduce the possibility of a sudden reassessment of asset prices.

## **BRIEFING - BIS MEETING OF GOVERNORS – SHANGHAI – 29 FEBRUARY 2016 CLIMATE CHANGE AND THE FINANCIAL SYSTEM**

On the BIS agenda are two issues related to climate change and the financial system which have been raised within the FSB and G20, and are increasingly part of the public debate:

- The impact of climate change on financial stability; and
- The potential for the financial sector to encourage environmentally sustainable investments.

### **Climate change and financial stability**

With the support of the G20, the FSB has been exploring the risks to financial stability from climate change and has identified three main categories of risk:

- **transition risk** to investors (including banks, insurers, superannuation and investment funds) if a policy change or climate event were to result in a sharp repricing of carbon related assets.

Superannuation funds are increasingly being questioned about the appropriateness of investing in emission-intensive assets. APRA expects that funds will assess the risks of climate change as part of their overall investment strategy. A number of funds have announced that

they will reduce exposures to fossil fuel companies or screen them out completely from sustainable or “ethical” investment options. The key risk to superannuation (and investment) funds more generally is due to repricing of assets especially assets that become “stranded” due to being rendered uneconomic due to policy changes or changes in demand patterns. It should be noted that such repricing tends to play out over time, and hence superannuation funds are able to adjust their investments as such repricing occurs. One exception would be unlisted assets where values may adjust precipitously due to perceived changes in demand patterns, it should be noted however that such value changes are often due to related technological changes.<sup>1</sup>

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<sup>1</sup> Examples include the recent repricing of thermal coal and coal powered generators; this required not only policy responses related to greenhouse gas emissions but also the advent of technological changes that increased yields on renewable sources as well as the development of associated battery technologies.

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On the BIS agenda are two issues related to climate change and the financial system which have been raised within the FSB and G20, and are said to be prominent in the public debate:

- The impact of climate change on financial stability; and
- The potential for the financial sector to encourage environmentally sustainable investments.

### **Climate change and financial stability**

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- **transition risk** to investors (including banks, insurers, super funds and investment funds) if a policy change or climate event were to result in a sharp repricing of carbon related assets.

- There is increasing scrutiny on the appropriateness of super funds' emission-intensive assets. The key risk to super and investment funds is the potential repricing of assets

especially assets that become 'stranded'. However, such repricing tends to play out over time, and funds should be able to adjust their investments accordingly. One exception would be unlisted assets where values may adjust quite quickly due to perceived changes in demand patterns and technological advancements.

Financial Stability and International Departments

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