**Questions from Treasury Committee on the appointment of Jonathan Hall to Financial Policy Committee (FPC)**

**10 July 2020**

**Personal/General questions**

1. ***Do you have any business or financial connections, or other commitments, which might give rise to a conflict of interest in carrying out your duties as an external member of the FPC?***

   No

2. ***What other work and other responsibilities will you have while you are a Member of the FPC? How will you manage any conflicts of interest that may arise?***

   No conflicts. Ongoing academic work in Philosophy of Mind.

3. ***Do you intend to serve the full term for which you have been appointed?***

   Yes

4. ***Do you intend to apply for a further term?***

   I have no objection in principle to serving for six years, if HMT wishes me to serve a second term.

5. ***Please explain how your experience to date has equipped you to fulfil your responsibilities as a member of the FPC.***

   Two major requirements for the role of an FPC member are strong and proven financial sector knowledge and experience, and strong analytical ability.

   As you will have seen from my CV, I have 25 years of experience as a practitioner in the investment sector of the financial markets. I have worked in five separate countries always working on macro markets and interest rates in particular. As well as focusing on business strategy and the macro economics of the global economies, I have been extremely engaged in the technical details. I was involved in benchmark rate reform discussions from the beginning, at first as a member of the Market Participants Group that produced a report for the FSB, and then the Bank of England's Working Group on Sterling Risk-Free Reference Rates. Additionally, I have deep experience of managing clearing house risk, personally taking over the LCH GBP Lehman portfolio, as well as being involved in the working group advising on default risk management for CME IRS clearing. Finally, my experience in banks and a fund, as well as on the Board and Executive Committee of ISDA, have given me deep insight into the complex non-linear exposures and correlation risks that can dominate markets in times of stress.

   A particular responsibility of external members is to bring an independent perspective in order to constructively challenge views of the Bank and other FPC members.

   My experience has allowed me to build expertise that is both relevant to the FPC and complimentary to the rest of the committee. This includes not only understanding the technical models and theoretical consequences of policies, but also the practical implications of implementation. I intend to join the Bank in engaging in outreach through both market participants and agents, to try and pick up early warning signals and paradigm shifts that may not be captured by historically based models.

6. ***What areas of the FPC's work do you believe you will make a particular contribution to?***

   Extracting signals from financial markets

   Libor reform

   Margin and collateral analysis and implications

   Contingent liquidity

   Central Counter Parties (CCPs)

   The non-bank financial sector

7. ***Are there any skills or areas of knowledge that you feel that you have to refresh or bring up-to-date to carry out your duties as an external member of the FPC?***

   Of course. I, and the committee as a whole, should always maintain a disposition of epistemic humility.

   ***If so, what are they and how do you intend to increase these skills/areas of knowledge?***

   I look forward to a two-way interaction with the bank staff and other external members through which I would expect to develop my knowledge in those areas with which I am less familiar. I intend to develop a strong and broad network with colleagues across the Bank to learn from others and develop my understanding of current workstreams. I expect that in some areas I will help to drive change whereas in others I will benefit from the experience and analysis of others. Areas where I am keen to focus my learning include:

   Property related exposures

   Cyber security

   Challenger Banks

**Financial and economic policy questions**

In all of the below questions, I will refer to the key principle that the FPC should aim to minimise the size and impact of financial system shocks. This has three inter-related elements; (i) minimising the build-up of risks to the financial system, (ii) minimising the likelihood of sudden shocks to the financial system and (iii) minimising the risk of amplification of financial system shocks**.**

8. ***How would you compare the coronavirus crisis to the Financial Crisis in 2008, and what risks does it pose to financial stability?***

   There are significant contrasts with 2008.

   Most importantly, the banks were significantly better capitalised going into the covid-19 shock and, in the UK in particular, the FPC was able to very quickly release the Countercyclical Capital Buffer. In 2008 bank exposures and behaviour significantly amplified the shock, causing a credit crunch, whereas in 2020 banks have been in a position to continue to lend and support the economy.

However, compared to 2008, the shock was much more sudden and broad-based. Corporate and financial entities simultaneously engaged in borrowing or drawing on credit lines, to secure a "financial bridge", so there were huge drains on bank liquidity. For example, March 2020 net lending to corporates was 30 times the average monthly lending from 2019. This led to increased funding costs in both unsecured and secured markets such as repo. When combined with market volatility, this caused position reduction and stress in usually liquid products such as gilts and treasuries. By mid-March, position driven liquidation had some similarities to *1998*.

An unusual element, which exacerbated the market stress, was the impact of home working on liquidity. In modern markets, liquidity is enhanced by combining electronic and human market making. Electronic liquidity was reduced automatically as a function of the environment, and human liquidity provision was extremely difficult from home.

Global Central Banks were well placed to monitor market conditions and respond with both liquidity measures and asset purchases. They did so extremely quickly and conditions stabilised.

Looking forward, companies across many sectors have been forced to adapt to two major changes:

- Working with the bare minimum of staff
- Working outside of a central office.

Once observed, a data point such as this persistently affects belief formation.

If a significant number of firms decide that they can continue to operate at least partially in this manner it could have significant impacts for employment, credit risk and commercial real estate. If long term changes in work practices that may have taken place slowly over a decade (for example automation) were to happen very rapidly as a function of covid-19 then this would be a shock, with winners and losers. Such economic shifts could make parts of the current capital stock obsolete, which would impact the financial system through credit losses and real estate exposures. This is an example of a shift that is manageable and may even be positive, through productivity growth, if it happens slowly, but potentially disruptive if it happens as a sudden shock.

I must note that there is of course a risk of a second wave of covid-19 hitting before a vaccine is available. If the response to a second wave disrupts the seasonally strong Q4, for example, that would be significant for many businesses and might cause a further shock to the system.

***9. Aside from that posed by the coronavirus, which do you think are currently the greatest threats to financial stability facing the UK?***

A disorderly EU exit (Q11).

Property related exposures (Q8)

Sharp moves in correlation.

Cyber threats, although I need to increase my knowledge in this area.

Completed questionnaire should be returned to the Treasury Committee (treascom@parliament.uk) by **Jonathan Hall**, along with a full CV.

As recent months have shown, unexpected events are always possible and can pose risks if mitigation actions are not taken quickly.

***Of these, which is the most significant?***

As many of the above threats are discussed with reference to other questions, I will focus on correlation risk.

Most crises are, at least partly, a function of sharp, unexpected moves in correlation. For example, the 2008 crisis was magnified by the difference between the modelled correlation in US mortgage defaults and the out-turn correlation. Outside of the financial markets, an NHS that can usually cope with a population of 65mm was put under severe strain due to the sudden surge in patients with highly correlated treatment-needs.

Jeremy Stein, ex-member of the Federal reserve board of Governors, described the three financial and economic risks as related to insolvency, credit crunches and fire-sales. Credit crunches can be caused by highly correlated depositor/lender behaviour and fire sales are exacerbated by highly correlated investor behaviour.

Portfolios that are low risk and diversified in one correlation paradigm can become high risk in a different correlation paradigm. For example, in mid-March, developed market government bond yields started to rise at the same time as equities fell. This "correlation flip" is highly unusual. It caused financial conditions to tighten significantly, harming the economy, but also caused financial stress as traditional balanced portfolios lost on both bond and equity assets.

Correlation shifts can be caused by unexpected events or new technologies, and financial system risks can be amplified by exposure to that correlation. It is important for the Bank to monitor both correlation moves and correlation exposure.

In order to be alerted to new threats in a timely fashion, the Bank must use its network of agents and financial market contacts to highlight building risks and potential sources of shocks. The Bank needs to have a system of what one might call financial sentinels that identify risks early, so that those risks can be monitored centrally and mitigating action can be taken. In Q14 below I discuss some of the core indicators that are fast moving market-based indicators of stress, such as the VIX and bank CDS. However, it is important to constantly remind oneself that each period of stress is different. New threats will be best monitored through new indicators.

10. ***How do you think the current crisis will affect the international economy, and how might that impact on UK financial stability?***

I would suggest the following three stage process for analysing how the impact of the recent shock on the international economy will affect UK financial stability.

The first stage is to monitor and measure the size of the ongoing shock in each jurisdiction. As is well known, this has been shifting over time and no country has been spared. Having said that, different policy responses, population densities and demographics, amongst other things, have meant that health outcomes and economic impacts have not been uniform. This area is extremely complex and ongoing, but important to monitor.

The second stage is to consider the interaction in each country or area, between the shock and pre-existing vulnerabilities. For example, as discussed in Q8, in 2008 the financial stability impact of a drop in house prices was significantly amplified by complex and opaque property exposures. Examples of pre-existing vulnerabilities that have been highlighted by the FPC in recent years are high levels of private sector debt in China, corporate sector indebtedness in the US, and vulnerabilities associated with high levels of public sector debt, and interlinkages between banks and sovereigns, in the Euro area currency union. It is still early days but, so far, the combination of government and central bank actions have contained any amplification from these potential sources of vulnerability. On the positive side, the international moves towards increases in bank capitalisation and transparency have meant that so far, the global banking system has been part of the solution rather than an amplifier of the problem.

The final stage is understanding the exposure of UK financial institutions, through trade and financial linkages, to those international economies that have been affected. Here, exposure to Europe and the US are greatest, but China, Hong Kong and India are also important. Linkages to other countries that have had large economic issues, such as those in Latin America, are much smaller.

Central bank and government actions have stabilised the financial system globally, and stress in funding markets, emerging market yields and currencies, and global financial conditions more broadly have eased. Within local markets it has helped that inflation is low globally, so there has been no adverse trade-off between policies that are consistent with inflation targets and those that reduce market stress. Cross-border tools from the 2008 crisis have ensured that USD funding was available overseas.

Even without further shocks, there are likely to be significant credit losses and lengthy periods of increased government spending globally. A contraction as deep as the one we have been through will likely leave scarring and the shape of the recovery in future months will be very important for financial sector resilience. Further public-health driven distancing measures or geo-political tensions could cause demand or supply shocks and force another sharp repricing of asset prices.

There is a high level of uncertainty around the future path of the global economy and the FPC must remain vigilant.

11. ***What challenges do the following pose to the work of the FPC and how should it manage them?***
    a. ***Risks arising from our exit from the EU***

Due to the size, complexity and importance of the UK financial sector, regulation and supervision cannot be outsourced to another jurisdiction. UK regulatory authorities must have autonomy to ensure the safety and soundness of the UK financial system. However, that does not mean complete disengagement. The EU and the UK will retain deep financial links and both areas will benefit from a stable and effective regulatory relationship. I support the FPC's advocacy of stable outcomes-based equivalence.

Of utmost importance is that sudden changes in the relationship don't become a source of financial risk. I commend both the FPC's focus on potential sources of disruption, as highlighted through its published checklist, and the actions of the government, that have reduced risks to the UK on all highlighted measures over the past few years.

The greatest remaining risk to the financial sector is in the area of derivatives. The most imminent risk relates to whether the EU grants the UK CCPs permanent or temporary recognition at the end of September. If this is not achieved there could be disruption. This will be felt mainly by European institutions, but could have knock on effects in the UK.

Equivalence is important for financial services generally, but particularly for the ongoing performance of bilateral as well as cleared derivatives contracts, due to restrictions on lifecycle events. The good news is that the banking system seems as prepared as it has ever been. The actions of the Bank of England, including the FPC, government and banks themselves have significantly reduced risk over the past four years.

Longer term, there is a risk of increased fragmentation and complexity. This would increase friction costs for the economy, the supervisory burden, and the risk of what Paul Tucker called "underlaps".

***b. Non-Bank financial sector***

It is important that the non-bank financial sector does not act to increase instability in a time of stress. In March some amplification was observed, driven by what the Bank has called the "dash-for-cash". The combined effects of increased cost of funding, increased volatility and sharp shifts in correlation (see Q9) caused illiquidity and position reduction even in government bonds such as longer-term Gilts and Treasuries.

Moves in financial markets tightened financial conditions considerably at the very time that they needed to be eased to counter sharp health-policy driven slowing in the global real economy. Fast actions by global central banks, which were justified and necessary for macro-economic reasons, were important in easing the financial stability pressures on the system.

The remit letter from the Chancellor in March specifically recommended that the FPC publish a detailed assessment of the oversight and mitigation of systemic risks from the non-bank financial sector. Additionally, the FCA and the Bank are in the process of a joint review of open-ended funds for the FPC. This will be an important area of work that will incorporate lessons learned from the recent market stress. I look forward to engaging in this topic once I become a member of the FPC.

12. ***In your view, how could climate change be better assessed and factored into the FPC's consideration of risk?***
***What do you consider to be the key issues?***

The Government has legislated a target of net zero emissions by 2050. It is incumbent upon all participants in the UK economy to understand, prepare for, and be a part of the changes necessary not just to meet the target, but to do so in a way that minimises disruption.

Financial market participants need to identify and act on the issues that are relevant in each sector. This is not easy as firms don't have historical data on which to base decisions. The FPC, working with global bodies such as the Central Bank and Supervisors Network for Greening the Financial System (NGFS), can help with this through the publication of scenarios. The implementation of stress tests will give transparency to the issues and the financial stability implications. This should be an iterative process whereby the FPC improves the scenarios and stress tests, and firms learn best practices.

The Bank has already highlighted that risks can be split into physical and transition risks. Both of these could impact financial system stability if policy changes start too slowly and then have to accelerate. In line with its broader mandate, the Bank must identify, monitor, and take action to mitigate climate change risks to stability. The stress tests will be a major step in making progress on all three of those aims and I am sure a lot will be learned through the process.

13. ***What have been the FPC's greatest successes so far, in your opinion?***

I think the most important point is that the FPC exists. Ever since the financial crisis it has been obvious that there needs to be an entity mandated to monitor and minimise the build-up of systemic risks. The committee's mandate has led to an increasing volume of research and focus on how to optimise macro-prudential policy. Governor Carney's speech on GDP-at-risk distilled a lot of the progress to that date.

The primary policy lever has been the Counter Cyclical Buffer. Implementation of the CCyB has been a success in both good times and bad. It was a very powerful signal to release the full buffer very early in the slowdown, to support lending to the real economy.

***Where is there still work to be done?***

I believe that there is interesting work to be done in aligning a top down framework such as GDP-at-risk with the bottom up analysis of different sources of risk for the financial system. For example, a major sub category of GDP-at-risk could be credit-provision-at-risk which would relate to bank capital. It is important to note, of course, that sub-categories may combine in non-linear ways.

As discussed above, the FPC must focus on both minimising the risk of a shock, and minimising the amplification of that shock. The former implies focus on the build-up of risks that are known, such as credit exposure, but also on the potential impact of changes in financial system dynamics. The latter implies focus on risks contingent upon the assumption of a shock. Examples are contingent capital outflows, contingent market liquidity, contingent asset price correlations. These too are a function of the, continuously evolving, market structure.

A good way of capturing the two effects on current risks, that has already been put in place, is via stress tests.

14. ***What is your assessment of the FPC's core indicators?***

The core indicators seem to be in line with the guidance of the European Systemic Risk Board (ESRB). They are all indicators that it is appropriate to review and consider when setting the associated policies. However, they can't and shouldn't be used as a model of the reaction function of the committee. In their current form the indicators cannot be aggregated. The committee should always act in their best judgement and should not feel that actions are constrained by the indicators. In fast shocks such as that experienced this year, indicators may lag or not capture newly emerging risks.

I would differentiate between indicators that point to 'increasing risks' that might amplify future shocks and indicators that reveal 'increasing stress' in the economy, markets or financial institutions.

***Which indicators are most important?***

In scenarios of increasing risk: Credit-to-GDP ratio, private non-financial sector credit growth, household debt-to-income ratio and mortgage loan-to-income ratio.

In scenarios of increasing stress: Market indicators such as vix, cds and bank price-to-book.

***Are there any additional indicators you think should be considered?***

I would consider including a Financial Conditions Index such as the BoE MFCI as a forward-looking indicator.

Also, for each indicator I would consider highlighting the rate of change, and whether the current level indicates increasing risk or increasing stress.

15. ***What is your assessment of the public profile of the FPC, both within the industry and among t he wider public?***
***How important is it that the public understands the role of the FPC and the decisions it takes?***

The FPC's mandate is to reduce systemic risks and increase the resilience of the financial sector. It is important that all the relevant sectors of the economy trust that the FPC is fulfilling that mandate. To ensure that trust, the most important factor is whether the Bank is in fact reducing risk and increasing resilience. Trust will only follow from trustworthiness. It is important in this regard, that the FPC is seen to be independent, but held accountable to a clear mandate. Its record and communication has been, and must remain, transparent.

Completed questionnaire should be returned to the Treasury Committee (treascom@parliament.uk) by **Jonathan Hall**, along with a full CV.

There are multiple audiences to whom the Bank is communicating. The most important are financial market participants and the financial press. Here, clarity of communication can enhance or undermine policy actions. Policy and communication must be consistent and understandable in light of the mandate. Although the public more broadly may not need to understand the intricacies of specific policies or models, it is important that they understand that the FPC is acting to keep the financial system safe. As other FPC members have said in the past, banks, and the financial system more broadly, need to support the economy in good times and in bad.

Macro-prudential policy is a complex area but the FPC should continue to try to make its actions understandable. By providing different layers of communication, the FPC can signal issues to a broad audience at a high level, whilst also giving individuals the option to delve more deeply into anything they deem relevant or interesting.

I do feel that the release of the CCyB was a significant move that didn't get as much attention as it deserved at the time. This is partially because the press was naturally more focused on the health aspects of covid-19. Over the longer term, the lack of attention doesn't seem to have had any negative impact on the impact of the policy. When combined with the other central bank actions, the financial market volatility of March was brought under control.

The FPC is still a relatively young committee and understanding amongst the general public will grow over time. The FPC should continue to use the communication tools available to explain its actions and the reasons for those actions. The build-up and then release of the CCyB is a good case study for this.