Personal

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

As disclosed in my application for the position of external member on the Bank of England's Financial Policy Committee (FPC), I am a Director on the Board of Intact Financial Corporation (IFC). IFC is a provider of property and casualty insurance in Canada and specialty insurance in North America. IFC is presently undertaking the purchase of the Royal Sun Alliance Group (RSA). This purchase is expected to be completed in June 2021. This presents a potential conflict of interest because RSA is overseen by the Prudential Regulatory Authority.

The potential conflict was approved on the basis that:

(a) I will recuse myself from receiving papers and participating in discussions of the UK insurance sector that might be relevant to RSA; I am confident that the Bank of England has a robust framework to guide recusals and information management.

(b) Such recusals are likely to be rare and not so frequent as to prevent me from making a meaningful contribution to the committee's work, based on experience to date and given the broad range of issues that the FPC will need to tackle.

As a practical example, I will not be involved in the discussions related to the Climate Change Biennial Exploratory Scenario nor will I receive any related written materials because RSA and its competitors will participate in the exercise.

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

It is an honour and a privilege to have been appointed to the FPC, and I intend to serve out the three-year term.

3. **Do you have, or do you intend to take on, any other work commitments in addition to your membership of the FPC? If so, how will you fit them alongside your commitments at the FPC?**

My intention is to have a portfolio of work engagements, paid and unpaid, in addition to the FPC. In addition to my Director position at IFC, I am presently a member of the UK G7 Panel on Economic Resilience, chaired by Lord Mark Sedwill (unpaid), [and a guest-mentor for the Blockchain Stream at the University of Toronto's Creative Destruction Lab (unpaid)]. I also expect to take on a position with Princeton University's Griswold Center for Economic Policy Studies, beginning in the new year. Collectively, the commitments I have made so far, including as an external member on the Financial Policy Committee, do not add up to full-time work and will likely involve less time commitment than was required as Senior Deputy Governor.

In general, any professional commitments that I make over my three-year term will be made considering potential conflicts of interest, scheduling clashes and overall demands on my time to ensure that I will make a full contribution to the FPC's work.

4. Please explain how your experience at the Bank of Canada will inform your role as an external member of the FPC. To which areas of the FPC's work do you expect to make particular contributions?

As Senior Deputy Governor of the Bank of Canada from May 2014 to December 2020, my focus was on setting policy across numerous disciplines, including monetary policy, financial stability, payments systems and currency. This included contributions as a member in Canada's main financial stability committees that deal with macro and micro prudential issues, such as housing finance regulation and the counter-cyclical capital buffer. Most recently, I led the Bank of Canada's policy response to the COVID-19 pandemic, which included programs such as long-term repos, purchases of private-sector money market instruments, fixed income securities and quantitative easing (I gave a speech on this in May 2020.[1]) These were introduced to restore stability in core Canadian dollar funding markets and reinforce the bridge to sustained economic recovery in pursuit of the inflation target.

I have nearly 20 years of experience in central banking in which I contributed to financial system stability agendas in Canada and internationally. Leading the Financial Stability Board's first working group on Fintech issues and the Basel Committee's working group to develop the first global liquidity standards were highlights for me, having enjoyed the rewards of successful teamwork including with the Bank of England. As the Bank's G20 and G7 Deputy, and a member of the Financial Stability Board (FSB), I developed deep knowledge of financial system vulnerabilities at the global level and the priorities to address risks that the COVID-19 pandemic has placed in sharp relief. This hopefully increased the quality of the Bank Canada's Financial System Review publications, and the Bank of Canada's policy advice to the federal government.

Given this experience, I bring to the table expertise that is highly relevant to the FPC's mandate to support the resilience of the UK financial system and the Government's economic policies geared to achieving objectives for economic growth and jobs. There are undoubtedly areas where I will need to refresh and deepen my knowledge, and I am looking forward to this learning process along with interaction with FPC and Bank of England colleagues.

My intention is to contribute to the best of my ability in all areas of the FPC's work, but I expect to make particular contributions in the following areas where there is an intersection between my background and strategic importance (which I discuss more fully in the next section under question 6):

- *Responding to the lessons of the crisis* – Many of the lessons we have learned from the COVID pandemic so far that are relevant to financial stability relate to the March 2020 'dash for cash' episode. I had a front row seat to this and, as mentioned above, helped

[1] Wilkins, C. A (2020) "Bridge to Recovery: The Bank's COVID-19 Pandemic Response", C.D. Howe Institute (delivered virtually), 4 May 2020.

engineer the response. In addition, my experience on the Financial Stability Board extended to December of that year, and so I contributed to the assessment of what areas of non-bank financial intermediation and banking regulations merited attention as well as initial discussions on how central banks should fit in in terms of liquidity provider and market maker of last resort.

- *Payments modernization and Central Bank Digital Currency (CBDC)* - Payments systems, both in the UK and globally, are evolving rapidly with innovations such as stablecoins creating opportunities and risks that the FPC must stay on top of. Combined with the decline in the use of cash to make transactions in many jurisdictions, including in the UK, these developments have prompted many central banks to look at the merits of developing a CBDC. The Bank of England is no exception, and this is a matter with implications for both monetary policy and financial stability. As Senior Deputy Governor in charge of economic and financial research, I led a rich research program on the policy and technical considerations of CBDCs, and on digital money. I also have more general experience with financial market infrastructure given the Bank of Canada's oversight responsibilities. I was also directly involved in the ongoing modernization of Canada's payments systems over the last couple of years.

- *Crypto assets and the ecosystem* – These financial innovations are evolving rapidly and are establishing inroads into the traditional payments and financial ecosystem. While I cannot claim to be an expert in this new technology and the emerging products, I have a reasonably current sense of the opportunities and risks that these innovations present, as well as the pressing policy issues. This sense was developed through the Bank of Canada's experimental research on crypto assets that I initiated early in my tenure as Senior Deputy Governor, my involvement in work on these topics with the Financial Stability Board, as well as my own policy research (see my speeches and publications). I am trying to remain current and contribute to sound development in this area, in large part through my volunteer work with the Block Chain stream at the University of Toronto's Creative Destruction Lab.

- *Cyber and other operational risks* – A number of forces have raised cyber and other operational risks over the last number of years, including digitization, and have only been heightened by the pandemic as many moved to remote work and increased reliance on online shopping. As a member of the Bank of Canada's Board of Directors, which is responsible for operational oversight, and given my responsibilities as Senior Deputy Governor, I was involved in several important initiatives to reinforce cyber and operational resilience within the Bank and to improve coordination across important stakeholders. This included work within Canada and at the G7 to conduct tabletop exercises. In the context of the Financial Stability Board's Standing Committee on the Assessment of Vulnerabilities, I also had the opportunity to comment on work done related to outsourcing and third-party relationships, and response and recovery for cyber incidents.

Finally, I would like to highlight my belief that the quality of the FPC's contribution to financial stability depends keenly on vigorous and respectful debate of views that underpin timely consensus-based decisions. In this regard, my colleagues have told me that I speak my mind, consider what others have to say, and am level-headed in my decision-making approach. These skills have come in handy to reach consensus with the Bank of Canada's Governing Council on monetary policy and to deal successfully with numerous episodes of economic and financial stress.

5. **How do you assess your current state of knowledge about the UK economy and financial sector and macroprudential policy in the UK, and are there any areas in which you need to develop your understanding?**

My experience at the Bank of Canada and with international groups such as the Basel Committee and the Financial Stability Board have afforded me with good general knowledge of the UK economy and financial sector, and their importance to the rest of the world.

That said, my knowledge is not as deep or broad as I would like it to be, and the opportunity to learn more about the UK was a key motivator for applying for this role. Some examples (not exhaustive) of where I have started to improve my knowledge are:

- the structure and functioning of the UK mortgage market, given its differences to the Canadian market;
- the important nuances of UK's application of Basel III, including its capital framework; and,
- the implications of the new and still evolving UK/EU relationship for the UK financial system.

In terms of the economy, I look forward to gaining a deeper appreciation of the regional differences, especially those that may help inform the FPC's understanding of the effects of policy decisions.

The Financial Policy Committee

6. **What is your assessment of the track record of the FPC and the state of the global financial stability regime? In your opinion, what are the areas of most success and in which is there still the most work to be done? Where would you particularly like to see international agreement?**

The Financial Policy Committee is a positive model for authorities around the world who are responsible for financial stability. The clear mandate, delegation of authority and governance that has emerged since the committee's inception in 2013, stand it in good stead for successful implementation of its mandate.

As an example, the FPC's work to build and implement a framework for the countercyclical capital buffer (CCyB), meant that banks operating in the UK had built up a buffer that could be released at the onset of the pandemic last year. This action, along with others such as supporting the PRA's decision to allow banks to exempt government-guaranteed pandemic loans from the calculation of their leverage ratios, enhanced the balance sheet capacity of banks to extend much-needed credit to households and businesses.

This, of course, must be viewed in the context of the broader set of reforms that were made at the international level following the Global Financial Crisis (GFC) over a decade ago. Implementation of Basel III has meant that globally active banks have greater loss absorbing capacity (e.g., in aggregate, UK banks have three times more capital than they did in 2007), are less levered, and hold more liquid assets. There is an enhanced ability to resolve banks should they fail, and with a much lower chance that the taxpayer would be on the hook.

Another example is the great strides forward that the Bank of England has made in stress testing banks, which is a useful tool for the FPC and banks themselves to understand and mitigate risks that they face. It was highly effective in building confidence that UK banks could withstand a broadening of the 2019 US-China trade conflict, as referenced in the December 2019 FSR. There is still work to do in terms of developing the stress testing models (and this applies to other central banks and prudential regulators as well), to better account for real-world interdependencies across financial institutions and potential feedback loops from financial markets and the macroeconomy. The work on climate change scenarios is another area of strength of the Bank of England team, given what I know from seminars that I attended with Bank of England staff when still at the Bank of Canada and what has been published to date. I am sure they would agree that modelling in this area is even more challenging than with regular stress testing and there is considerable room for future development. It is positive that the Bank of England is collaborating with other central banks, academics, and the private sector to move this agenda forward.

International financial reforms following the GFC were also successful in strengthening market structure in several areas, such as an increase in central clearing of over-the-counter derivatives, and margining of derivatives. Moreover, the transition away from LIBOR, which is still underway, will enhance the integrity of the market.

That said, a considerable amount of activity has shifted over the last decade or so from the banking sector towards non-bank financial intermediation (NBFI) where the regulator's line of sight is less clear. This issue is explored further in my answer to question 12.

There are at least three other areas, outlined in my response to question 4, that I think merit concerted and timely efforts at both domestic and international level to increase resilience:

- *Cyber and other operational risks* - The FPC can help move this forward by assessing the state of readiness of the financial system, and by leading stress testing exercises to increase readiness to identify and respond to cyber threats and events. The FPC has already conducted a pilot exercise looking at a data availability scenario in 2019 and has announced that the next one will be on a data integrity scenario in 2022. Moreover, the FPC has been monitoring financial stability risks from cloud outsourcing since 2018. Digital channels run through every sector of the global economy, making international cooperation critical to setting a sound framework for mitigation of operational risks, and swift recovery should these risks materialize.
- *Crypto assets and the ecosystem* – The prominence of different kinds of crypto assets that provide a range of services (e.g., securities, payments, utilities) has grown in recent years, with an expanding ecosystem of complementary services (e.g., wallets, forensics) and bridges to the traditional financial system (e.g., exchanges, stablecoins). The FPC can help move this forward by continuing to monitor benefits and risks arising from the growth and adoption of crypto assets and recommend appropriate regulatory frameworks in response to threats to financial stability. Please see my answer to question 11 for more on this issue.
- *CBDC* – The decline in the use of cash and innovations in private means of payment have prompted many central Banks to consider issuing a CBDC. CBDC raises crosscutting issues for a range of authorities and so it is helpful that the Bank of England and HM Treasury have created a taskforce to coordinate the exploration of a potential UK CBDC. It is also positive that the Bank of England is working with the Bank for International Settlements and other central banks on policy and design issues, given that CBDCs will likely need to interoperate and those of major currencies could have

implications for the global financial system. Please see my answer to question 11 for more on this issue.

7. How important is it that the public and the financial services industry understands the role of the FPC, the decisions it takes and the views of its members?

Trust in institutions, whether national or international, is foundational to economic and financial resilience. It is reflected every day in the decisions of families, businesses, and investors, although we tend only to notice when trust has been frayed. This was the case following the great financial crisis (GFC), when trust indices (e.g., such as from Edelman) fell dramatically.

It is, therefore, critical that the Bank of England's FPC treats the trust of the public and the financial services industry as its greatest asset. There are several building blocks to securing this trust that are grounded in transparent communication:

a. A clear remit and set of tools – The FPCs mandate is set out in a clear manner, as are the tools that the Committee have at its disposal to achieve it (e.g. the CCyB and mortgage market recommendations). Ultimately, however, financial stability can only be maintained if people understand systemic risks – what is at stake individually and for others -- and take action accordingly (e.g. transition away from Libor; managing the transition to a lower carbon economy). In this regard, people are the first line of defence in safeguarding financial stability;

b. Accountability to elected officials – Substantial powers have been granted to the FPC whose members are not democratically elected. This makes accountability to UK citizens, through elected officials such as the Treasury Select Committee, vital to maintaining the FPC's legitimacy.

c. Transparent communication of views and decisions – This is statutory obligation for the FPC, that is important to meet through regular communications that are geared to understanding by diverse audiences. The financial services industry is likely a natural audience for FPC communications and are interested in a technical discussion of the issues. That said, financial stability is a matter for the broader public as well, and communications from the FPC should also be geared to understanding by a non-technical audience. Communications with the financial industry and the broader public should also be two way, so that the FPC understands and can consider a wide range of perspectives. During my time on the FPC, I intend to play my part in helping communicate the views and decisions of the Committee. This could be through possible speeches, regional visits organised through the Bank's Agency network and engagement with media.

8. The current remit letter from the Chancellor recommends that the FPC act with a view to supporting four aspects of the Government's strategy for financial services: competition and innovation; openness and competitiveness; environmental sustainability and climate change; and housing. As a FPC member, what will be your approach to balancing these against the statutory financial stability objective?

Policymaking is often a case of balancing important trade-offs, and the starting point is to understand as well as you can what they are. In that respect, I do not think that there is an inevitable trade-off between the primary and secondary objectives of the FPC. For instance, addressing liquidity mismatch in open-ended funds would reduce an important vulnerability, and could encourage longer-term investment in illiquid assets that could lift productivity and economic growth. That said, my approach to making such assessments would:

1) *Lean heavily as possible on analytical evidence* – the FPC's judgements should be informed by the data and a clear analytical framework for assessing the potential implications of policy changes. Cost-benefit analysis should consider, whenever possible and appropriate, various aspects of the remit at the same time, although with the recognition that the primary objective dominates. As mentioned in my answer to question 6, the Bank of England has a wealth of analytical capacity (e.g., stress testing) and is investing in new areas that are critical to financial stability (e.g., climate change modeling, framework for assessing stablecoins). Research work to improve data and models is a job that is never done.

2) *Recognize that the FPC's tools cannot solve all problems* – supporting financial stability can mean implementing measures that restrict access to credit or increase the cost of financing. This has a dampening effect on growth, but it also reduces the chance of boom-bust scenarios that have been particularly costly for families and business in the past. When it comes to policies that affect housing finance, this gain needs to be balanced against other objectives of the government. That said, it is not clear that loosening financing conditions would improve access to housing, for example. This is because one of the issues in housing relates to supply, which the central banks are not able to correct. A worry therefore would be that higher housing demand would lead to more people being priced out of the market.

3) *Be transparent* – It is important that the FPC is clear in its communications about what trade offs were considered and ultimately made, and why. On the FPC's payments agenda, for example, the aim should be to explain how, in practice, proposed frameworks are constraining some businesses models and decisions to facilitate safe innovation.

In terms of marrying the FPC's primary and secondary mandates, the contribution of the Working Group to facilitate investment in productive finance will be particularly important.

Regulatory and policy issues

9. What is your assessment of the risks to financial stability arising from the Coronavirus pandemic? How well have the FPC and global policymakers dealt with the situation to date, and what future challenges could emerge?

As in many countries, the COVID-19 pandemic has had a tragic impact in terms of health and lives. The economic fallout to the pandemic has been severe, with GDP falling in 2020 by 3.3% and nearly 10% in the UK. The recovery is underway as vaccination programs advance and restrictions to contain the spread of the virus are lifted, but it is likely to be uneven across sectors in the UK and between countries.

It was clear, even prior to the declaration of the global pandemic, that financial stability was being put at risk by mounting stress in core funding markets around the world. Some of the clearest signs of stress were in government bond markets, including in the UK, which are normally the most robust. In periods of severe financial market stress, there is typically a "flight-to-quality" dynamic that takes hold, where investors rush to the safest financial instruments, primarily benchmark sovereign bonds (e.g., Gilts, Government of Canada bonds, US treasuries). During the height of the panic in financial markets in March 2020, this did not occur. In fact, there was a notable degree of dysfunction in the government bond markets.

Major central banks, including the Bank of England, responded forcefully by implementing programs that were designed to improve functioning of core markets. These actions were generally highly effective, in part because they were introduced quickly and designed to deal with a particular issue before it snowballed into a bigger problem (e.g., outright purchases of commercial paper supported a critical source of short-term funding for businesses, and likely took pressure off committed bank lines of credit – this is relevant for both the UK and Canada. They also supported actions by central banks to reinforce the recovery through accommodative monetary policy. While assessments are likely ongoing, it will be important to conduct a post-mortem once the dust has settled on central bank interventions and determine what worked well, and how the tools might be sharpened.

The success of these actions was also enhanced by complementary policies that aimed to create a bridge to the other side of COVID and support the recovery, including releasing the CCyB (see answer to question 6) and government actions such as those to:

- *Support the financing needs of businesses to bridge to a post-COVID world*

  In the UK, government-guaranteed bank loans have played an important role helping businesses of all sizes obtain the credit they need in a difficult environment. It will be important, as these programs expire that banks are able to extend credit and contribute to the recovery, while adhering to sound underwriting practices.

- *Help affected workers and their families*

  Many countries implemented income replacement and job retention programs (e.g. the UK Coronavirus Job Retention Scheme). These were generally designed to limit economic hardship that might have been incurred because of the pandemic and containment measures. To the extent that they also preserved the relationship between employees and employers, and helped keep businesses afloat, these programs also work to limit the scarring that might occur (i.e., people becoming unemployed for long periods of time or leaving the labour force altogether, otherwise viable businesses shutting their doors permanently).

One future challenge that I would like to highlight is related to debt. Many households, corporates and governments will be left with materially higher debt burdens after the crisis. At over 300% of global GDP at the end of 2019, global debt levels were already high. This poses several risks to financial stability:

- Given the prevailing stance of monetary policy, debt servicing costs are not currently a problem. Debtors are nonetheless exposed to increases in debt-servicing costs should interest rates rise significantly and abruptly or should their financial situations deteriorate. The FPC requirements related to household borrowing are designed to reduce the chance than households could better withstand these kinds of adverse developments.

- More debt in the system increases the potential size of the next economic downturn. The stress test results on UK banks show resilience to extremely adverse scenarios.

- Given the high level of indebtedness is shared globally and the fact that the UK is a financial centre, financial stress in another jurisdiction would likely spill over to the

UK. For example, if China were to experience a hard landing in its economy there would likely be adverse economic and financial repercussions around the world.

a. What role can and should macroprudential policy play in supporting the economic recovery from the pandemic?

The recovery is underway in the UK and elsewhere, but we are not out of the woods yet. A slower or less effective vaccine rollout could prolong containment measures in some countries, and much is unknown about the risk of variants of the virus. Strong growth coupled with temporary increases in prices could stoke inflation fears, resulting in a sharp back up in yields. And, the low interest rate environment could spur investors to take on too much risk (see answer to question 13 for more on this). Examples of how the FPC can continue to support the economic recovery include:

- continuing to consider adverse scenarios that could threaten financial stability;
- emphasising that capital buffers are there to be used, and that the timing to begin restoring capital buffers should consider the overall strength of the recovery and choose a pace that does not undermine the ability of banks to support the recovery but still helps prepare them for future episodes of financial stress;
- addressing the issues related to non-bank financial intermediation highlighted in my answer to question 12; and,
- advancing the joint work with HMT, FCA and industry on productive finance.

10. What is your assessment of the risks to financial stability arising from climate change? What role can and should macroprudential policy play in promoting the transition to net zero carbon emissions?

Climate change is the most prominent intergenerational risk facing the global economy. It is also an area where there is an extreme degree of uncertainty, particularly given the unknowns about how changes in human activity (even if we could predict them) will affect the environment and how this will translate into economic outcomes. Many, including academics and central bank economists, are devoting considerable analytical firepower to understanding how climate risks are shaping the macroeconomy and financial system.

I think central banks have a well-defined role that relates to the potential financial-stability implications of climate change. These are particularly relevant for resource-rich countries like the UK and Canada.

There are physical risks to better understand as weather events appear to become more severe and more frequent. A 2015 study by the Bank of England reported that the number of weather-related natural hazard events has tripled since the 1980s. According to registered data, the annual insurance losses from these events, after adjusting for inflation, have increased from around US$10 billion in the 1980s to around US$50 billion over the past decade." The floods in the UK last year because of record-breaking rainfall and the wildfires in Alberta in 2019 are recent examples of extreme weather events.

There are also risks related to the transition to a low-carbon economy, as investors adjust their portfolios to reduce exposures to climate-related risks. Work to develop modelling tools that inform the assessment of different scenarios of the transition is a positive first step.

Consistent with my response to question 6, we need to be humble about the state of our knowledge in this area, and partner with others to make progress. Central banks should focus on areas of the climate change issue that are related to their mandates, to avoid raising false expectations of what their tools can accomplish, and in recognition of the fact that the finest tools to achieve a lower carbon economy are appropriately in the hands of governments.

11. What is your assessment of the balance of risks to financial stability and opportunities for innovation and growth arising from digital currencies, and from the possible development of central bank digital currencies in the UK and globally?

The ‘digital currency’ that I will refer to in this answer relates to a digital alternative to cash, and it is a stored value that is not linked to a bank account. The motivations for these innovations can be related to positive outcomes such as increased efficiency in payments, and broadened access to financial services. I think the objective of authorities, including those charged with safeguarding financial stability, should be to embrace these innovations within a regulatory framework that supports financial system integrity and resilience.

It is also useful to distinguish between two types of digital currency (DC) because they present different issues:

- DCs denominated in national currency that always redeem at par with fiat – many are widely used today (e.g., stored value cards) as are other forms of digital payments (e.g., debit cards). They do not get in the way of the central bank being able to achieve its monetary policy objectives or act as lender or market maker of last resort. The safety of this type of payments instrument really depends on the third party offering the service because we are trusting them to safeguard your balance and to validate and authenticate your transactions;

- DCs that have their own unit of account (i.e., cryptocurrencies) – there are many that exist today (e.g., bitcoin and tether) but they are not widely used as retail payments instruments, although this is changing rapidly with the emergence of stablecoins. I do not consider cryptocurrencies, such as bitcoin, to be money because they are not backed by any entity, do not provide a stable store of value and are not often used as a unit of account. I think of Bitcoin and other cryptocurrencies as highly risky investment products rather than money. While these types of DC may not be prominent enough to pose material risk to financial stability today, the ecosystem is developing rapidly. Here are some risks that need monitoring:

    - The ecosystem around cryptocurrencies can create financial vulnerabilities. Cryptocurrencies require users to put their trust in numerous private businesses, such as exchanges and Bitcoin wallets. This leaves them exposed to theft, fraud, and loss (e.g., failure of Quadriga resulted in hundreds of millions of dollars in losses). There is also a whole ecosystem developing around decentralized finance outside the view of the regulatory authorities right now that may present new sources of risk.

    - Cryptocurrencies can be used for money laundering, terrorist financing, and other criminal activities such as cyber-attacks using ransomware. The UK's National Cyber Security Centre has said it handled more than three times as many ransomware incidents in 2020 than in the previous year. This is not an issue for financial stability authorities to resolve, but it can have implications for stability if it threatens resilience of the economy and the financial system in important ways.

- If a cryptocurrency were to be widely adopted, it could affect the ability of the central bank to conduct monetary policy and act as lender and market maker of last resort. This is highly unlikely to happen in the case of cryptocurrencies that are unbacked, but could happen in the case of stablecoins. This is because they can provide better assurance of a store of value (their value is tied to a national currency and they are backed by assets denominated in that currency) and involve much lower transaction costs than other electronic payments methods (they can cut out the middleman).

If one or more DC or crypto asset were likely to become widely used for payments, or as an asset intended to store value, sound financial stability standards would need to be applied to relevant payments and exchanges. For instance, the FPC has made clear that payments chains that use stablecoins should be regulated to standards equivalent to those applied to traditional payment chains. Firms in stablecoin-based systemic payment chains that are critical to their functioning should also be regulated accordingly. If stablecoins are widely used as money-like instruments, they should meet standards equivalent to those expected of commercial bank money in relation to stability of value, robustness of legal claim and the ability to redeem at par in fiat.

The declining use of cash and developments in private money have prompted central banks to consider issuing a CBDC. In my view, universal access to a safe medium of exchange supports trust in the financial system and is therefore a public good. A CBDC would also safeguard against monetary instability or loss of monetary sovereignty that could result from private money being the only game in town. There are several issues that need to be better understood before determining that a CBDC is in the public interest, including its implications for bank deposits in normal times and when the system is stressed. See my answer to question 6 for more on CBDC.

12. Does the shadow banking sector pose risks to financial stability?

The diversification of sources of funds and other financial services that are provided by non-bank financial intermediation (some of which have been referred to as "shadow banking") can be positive for efficiency and stability of the financial system. That said, a considerable amount of activity has shifted over the last ten years from the banking sector towards non-bank financial intermediation (NBFI) where the regulator's line of sight is less clear. For instance, total assets managed by open-ended funds worldwide have more than doubled following the global financial crisis, to around US$55 trillion (as of 2019).

The growth in NBFI activity has prompted domestic and international authorities to seek to better understand the nature of risks that NBFI may generate, including those that could be amplified because of interconnections with the rest of the financial system. The "dash for cash" episode in March 2020 laid bare some issues that need to be addressed. For instance:

- How could money market funds and open-ended funds be reformed to reduce the demands for liquidity under stress?
- What can be done to enhance the incentives/ability of banks to use their liquidity and capital buffers when needed, and thereby increase their intermediation capacity?
- What improvements, if any, can be made to central bank funding and market liquidity backstops to make them more effective and efficient?

In all these areas, my understanding is that the FPC is supporting work the Bank of England staff are contributing to the FSB agenda. International agreement is important because of the global nature of markets. Domestically, the FPC published its preliminary findings in the August 2020 Financial Stability Report and has said it will publish a more detailed assessment of the risk oversight and mitigation systems for the non-bank financial sector, as requested in HM Treasury's 2020 remit letter. This work would be greatly enhanced by better access to data regarding NBFI activities and related interconnections within the financial system, both in the UK and abroad. The FPC has already started on this, for example having published in 2018 a deep dive into non-bank leverage, stressing that data collection and sharing needs to be improved domestically and internationally.

13. Apart from the issues highlighted above, would you highlight any other risks to financial stability in the UK and globally?

The global economy is recovering from the pandemic, which is positive news overall for financial stability. However, it is widely expected to be uneven across and within countries in part because of differing speeds of vaccination and the fact that businesses and workers in some sectors have been disproportionately impacted by the pandemic.

Even as the situation normalizes, however, we are still likely to be living in a low interest rate and slow growth environment. Demographic change, and slow productivity growth mean that the trend rate of growth that one can expect is slower than it was even at the turn of the century (e.g., Bank of England estimates in January 2020 put potential output growth at 1.1% over its 3-year forecast horizon, down from an average of 2.9% between 1998 and 2007). At the same time, slow trend growth and abundant global savings means the "neutral" rate of interest – the rate of interest where monetary policy is neither expansionary nor contractionary – is also lower (e.g., the Bank of England's most recently-published estimate of the neutral rate of interest is between 0-1%). Unless these underlying conditions change, interest rates will be relatively low for a while even as monetary conditions normalize.

This has a couple of implications for financial stability that merit monitoring. Asset and pension fund managers may face increased incentives to take on more risk with a lower neutral rate. Defined-benefit pension plans are in a particularly difficult position: funding and benefit levels were set based on shorter lifespans, a smaller number of retirees relative to the working-age population, higher discount rates and higher expected asset returns.

Market participants and fund managers investing in a wider universe of riskier assets is desirable if it increases access to funding for productive projects. The crucial question is whether investors can properly price and manage the risks. History is rife with examples of when excessive and prolonged search for yield ended badly.

The Treasury Committee will publish your answers to this questionnaire. Please provide a full CV when returning this questionnaire.