

COVID-19 AND FINANCE: MARKET DEVELOPMENTS SO FAR AND POTENTIAL IMPACTS ON THE FINANCIAL SECTOR AND CENTRES

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ABSTRACT

This paper offers an informed commentary on the actual and potential impacts of the pandemic on financial markets, sector and centres, grounded in literature on financial centres, the state-finance nexus, and trends affecting the landscape of finance since the global financial crisis. We expect a slowdown in new financial regulation, continued firm-level consolidation, and a continued rise of business services related to finance. The application of new financial technologies is likely to accelerate, affecting retail banking in particular, but will not necessarily be led by FinTech firms. Local and regional financial centres are likely to face larger challenges than leading international centres. As the panic and partial recovery in financial markets in March and April 2020 highlighted the significance of the international monetary hierarchy, with the US\$ in the lead, a radical shift of financial power to Asia seems unlikely.

Key words: COVID-19; currency markets; stock markets; financial sector; financial centres

INTRODUCTION

The ongoing COVID-19 pandemic is one of the biggest crises of modern times. In contrast to the global financial crisis (GFC) of 2008 which started in New York, the pandemic started near a meat market in Wuhan in central China, in December 2019. While some economists have stressed that in a stark contrast to 2008 the ongoing crisis is exogenous, with sources detached from economic fundamentals (see e.g. Lagarde 2020), the sources of zoonotic pandemics are affected by human relationships with and interventions in nature, such as intensive animal farming or meat markets. Moreover, while the GFC spread around the world through international financial and economic connections, globalisation has helped to turn COVID-19 into a pandemic

through international travel. In this sense, the ongoing COVID-19 crisis is endogenous, and could have been expected (e.g. Woolhouse *et al.* 2016).

Whereas the GFC is sometimes referred to as the North Atlantic crisis, the COVID-19 pandemic is truly global, directly affecting almost every country in the world. In order to protect lives of their citizens and halt the spread of the virus, governments of most countries have decided to shut down schools, public spaces and lock people down in their homes, effectively hibernating large parts of the economy. Cross-border movement of people and goods have been severely restricted. At the time of writing this paper (early May 2020), the duration, scope and death toll of the pandemic are uncertain, and so are its economic consequences. Roubini (2020)

foresees a global crisis which will at best be deeper than the 2008 recession but short-lived, and at worst will turn into a persistent L-shaped depression. The OECD (2020a) foresees an immediate decline of GDP by 20 per cent to 25 per cent in most advanced economies due to the direct impact of lockdowns. Standard and Poor's (S&P) anticipates a U-shaped recovery, with uncertainty regarding the duration of the bottom part of the U (S&P 2020). There is also a threat that liquidity problems experienced by households, businesses, and public sector organisations, will lead to a chain reaction of non-performing loans, insolvencies and bankruptcies, sending the global economy into a vortex of financial and economic crises.

The objective of this paper is to offer an informed commentary on the actual and potential impacts of the pandemic on financial markets, sector and centres. We will ground our analysis and discussion in three strands of research on economic and financial geography.

First of all, we build on established literature on financial centres. We consider financial centres as concentrations of financial and business services (FABS). Beyond the financial sector itself, these include accountancy, corporate law, business consulting, and IT services related to finance, all of which are essential to financial transactions (Wójcik 2018). The landscape of financial centres can be understood as the outcome of an interplay between centripetal and centrifugal forces (Verdier 2003). Localisation and agglomeration economies act as powerful centripetal forces. Access to local customers, their money and information, as well as labour, land and energy cost reduction pull financial centres apart. Technology enables the unbundling of FABS value chains, with front office, back office and data centres in different locations, in addition to a variety of jurisdictions in which financial vehicles and contracts are registered (Haberly & Wójcik 2015; Kleibert 2020).

The second strand of literature focuses on the relationship between state and finance. The state enables the existence and operation of a financial system through money, law and regulation. It shares the creation of money (including credit money) with private banks, and controls it through monetary policy. Finance

is made in law, as the former could not exist without the protection of private property and the enforcement of financial contracts (Pistor 2018). Regulation, combined with law, further affects the *modus operandi* of the financial system, but beyond that they directly create some parts of the FABS complex, such as corporate law, audit or tax services. One manifestation of the state-finance relationship internationally is the monetary hierarchy (Kaltenbrunner & Paineira 2016) or currency pyramid (Cohen 2000), with US\$ in the lead, as a currency dominating financial and economic transactions globally. Its power is underpinned by the political and economic might of the US, the size and depth of US financial markets, and a global network of traders (with US banks in the lead) using US\$. Another major manifestation is offshore finance driven by legal and regulatory arbitrage (Aalbers 2018).

Finally, we will rely on a rich body of research on the evolution of the international financial system since the GFC. This literature has focused on several major trends. First, the GFC unleashed a wave of new financial regulation. The initial plans to redraw the global financial architecture have been watered down, due to the prevailing economic orthodoxy and opposition from the financial sector (Ioannou *et al.* 2019). Nevertheless, among other measures, capital requirements for banks have increased, and trading of some financial instruments has been brought from over-the-counter markets to exchanges. Second, the financial sector has seen a lot of consolidation, with failing companies being acquired by others, often in transactions arranged by government (Wójcik & MacDonald-Korth 2015). At the same time, a new generation of financial technology called FinTech has emerged, with an industry of start-ups using online platforms, blockchain, AI and other technologies to challenge the existing business models in the financial sector (Hendrikse *et al.* 2019). Fourth, although employment in the financial sector itself has stagnated in many parts of the world, not least due to the introduction of new technologies, other business services, including accountancy, corporate law and business consulting have seen a major growth of employment (Cassis & Wójcik 2018). Finally, while

some expected the GFC to trigger a major shift of financial centres and power to Asia, this has happened only slowly and tentatively (Hall 2016; Wójcik *et al.* 2018, 2019).

Putting these strands of literature in the context of the COVID-19 pandemic leads to a myriad of questions. In this commentary, we will focus on four interrelated issues. How has the pandemic manifested itself in financial markets so far? How could it influence the financial sector and financial centres? What is the role of the state in these actual and potential developments? And finally, how do they compare with the trends that have affected finance and its geography since the GFC? Could the pandemic stop, reverse or accelerate any of these trends? In tackling these questions, we will be using recent economic and financial data, as well as insights from commentaries and reports by public and private financial institutions.

We will start by reviewing the developments in financial markets, taking into consideration the economic policy responses that have affected these developments. This will give us a basis, on which to build our expectations regarding potential impacts of the pandemic on the financial sector and financial centres.

FINANCIAL MARKET DEVELOPMENTS TO DATE

In financial markets the pandemic triggered a flight to liquidity or a 'dash for cash' with sales of risky assets for cash and purchases of less risky assets (Gros 2020). In currency markets this took the form of a flight to US\$. As Figure 1 shows all 11 selected currencies lost value in relation to the US\$ since the start of the year. CNY almost maintained its value, but it is the only of the selected currencies that does not have a floating exchange rate. Among the floating currencies, JPY and EUR lost least value, and AU\$ most, with GBP in between. On 20 March, GBP traded at US\$1.15, its lowest value since 1985. The price of AU\$ is likely to have been adversely impacted by declining prices of commodities, a major source of Australia's export revenues.

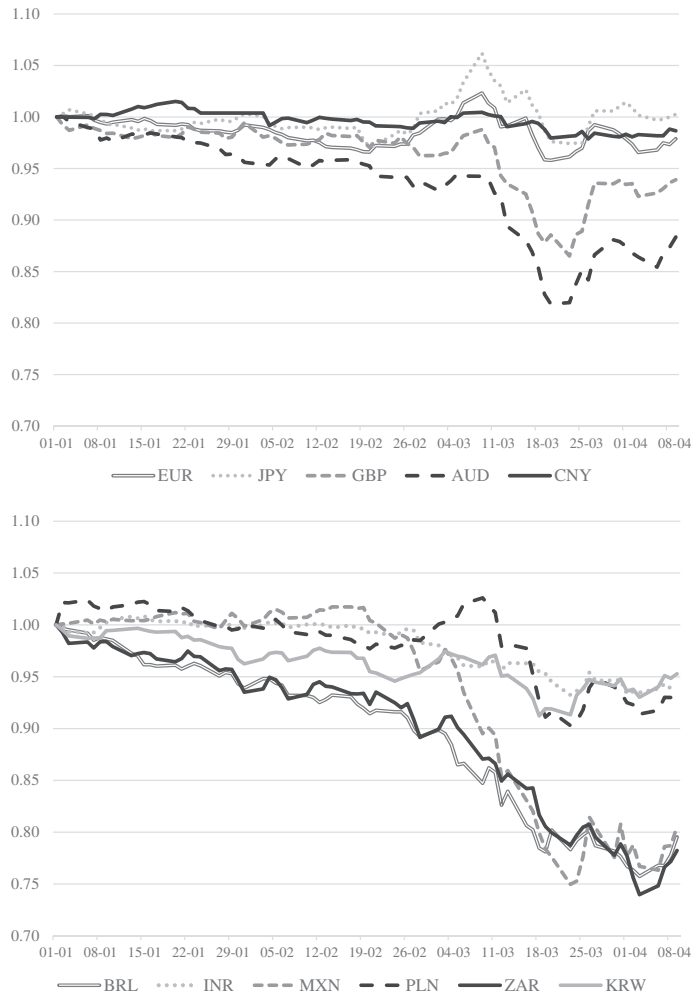
Among emerging market currencies KRW, PLN and INR followed closely the depreciation of strong currencies such as the GBP. BRL, MXN and ZAR lost a third of value. The former

group includes relatively advanced economies of South Korea, which managed to contain the spread of the virus early on, and Poland, which introduced quite strict containment measures as well. These two countries, as well as India, do not rely on commodity exports, in stark contrast to Brazil and South Africa. In addition, Brazil's President has gained a reputation for denying the severity of the crisis.

As for timing, the currency market was calm until early March, long after the WHO declared a global health emergency on 30 January. The major flight to US\$ started on 12 March, the day after President Trump announced unprecedented restrictions on travel from most European countries. This wave of US\$ appreciation lasted until 23–24 March. Then the US\$ fell and stabilised around the end of month.

Stock markets started to decline on 20 February, with a parallel fall in all major markets (Figure 2). Over the following 4 weeks, stock markets lost between a third and 40 per cent of value, with the pace of decline faster than in 1929 (Goldman Sachs 2020). On 9 March, market losses were so large that they triggered a market-wide circuit breaker on the NYSE, for the first time since 1997. The markets started to rise again around 23 of March, in line with the end of a flight to US\$. This highlights the interconnectedness of financial markets and marks the end of a wave of panic sales of risky assets, and a flight to liquidity, which may not be the last one, of course.

While all curves in Figure 2 have common inflection points, the impact of the pandemic, as gauged by the depth of the decline, differs significantly between countries and groups of companies. As China seemed to halt the spread of COVID-19 already by late February, and the lockdown has been gradually eased since then, Chinese stock market declined least, and in early April was already trading at over 92 per cent of its start of the year level (Figure 2). One should keep in mind, however, that the performance of the Chinese stock market is influenced heavily by the Chinese government, which controls many listed companies. The US and Japanese stock markets performed much better than that in the Eurozone. The UK stock market did worse than the Eurozone. With China as



Source: S&P Global

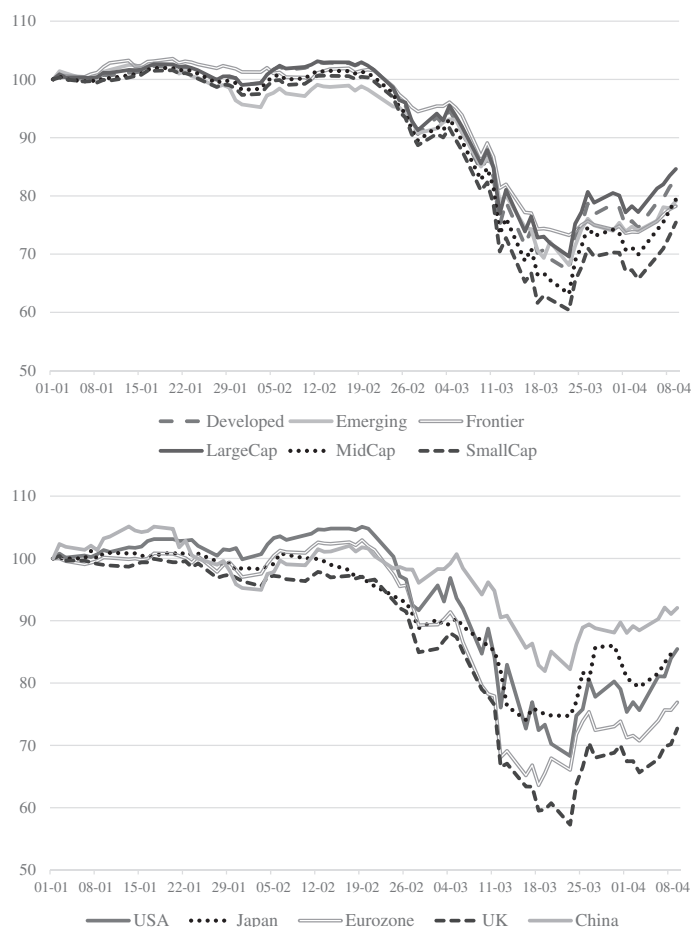
Figure 1. Change in the value of selected currencies in relation to US\$, 1 January to 9 April 2020.

a major exception, however, emerging and frontier markets suffered much larger losses than those in developed markets (Figure 2). This may be due partly to the negative effects of falling commodity prices on developing countries, which rely much more on commodity exports (Stiglitz 2020).

Size seems to be a major factor shaping the impact of the pandemic on business. Stock prices of companies with large market capitalisation (large caps) performed better than mid caps and much better than small caps (Figure 2). This is not usual, as over the last 10 years small

and mid caps outperformed large caps, in accordance with the expectation that higher risk assets should in the long run offer a better return than low risk assets. However, it seems that markets perceive size as a factor sheltering firms in the current conditions.

The pattern of decline and partial recovery in financial markets can be interpreted by considering the spread of the pandemic and economic policy responses by major governments, which have been chronicled brilliantly by Adam Tooze (2020). Both stock and currency markets remained quiet until 20 February, seemingly



Source: S&P Global

Figure 2. Change in the value of S&P indices for selected parts of the global stock market, 1 January to 9 April 2020.

in the belief that the pandemic could be managed without major economic consequences. However, with the growing number of infections and deaths in Continental Europe, particularly in Italy, stock markets started sliding, with investors moving money away from stocks and putting them in safer assets like bonds. In early March, the US and UK governments were downplaying the threat of the pandemic, while foreign exchange markets, concentrated in London and New York, remained rather unmoved as well.

With major escalation of the pandemic in Europe (in Italy and beyond), and its spread in the US, it became clearer that governments may need to introduce lockdowns. Meanwhile on 8 March the oil price plunged by 24 per

cent after OPEC countries, trying to react to a slump in actual and expected demand, failed to reduce production. This accelerated the stock market decline, resulting in a circuit-breaker being triggered on the NYSE the following day. On 12 March, at a press conference, the ECB President Christine Lagarde announced low cost funding for and asset purchases from banks, but decided not to cut interest rates and stated no intention for the ECB to start buying newly issued government bonds of Eurozone member states. This signalled that the EU's willingness to help economies in need, with Italy in the lead, was limited. On the same day, the US\$ appreciated sharply, and the 'dash for cash' across

financial markets started in the earnest. All the while, the pandemic was getting worse on both sides of the Atlantic, even though in China the situation was being brought under control. President Trump declared a national emergency on 13 March.

On 15 March, the US central bank (the Fed) cut interest rates to zero and offered to buy US\$700bn of assets from banks. The following day, it reopened liquidity swap lines, used in 2008, offering the UK, Swiss, European and Japanese central banks to exchange GBP, CHF, EUR and JPY for US\$ in unlimited amounts. On 18 March Bank of England announced purchases of GBP200bn of government bonds and the ECB announced buying EUR750bn of government and corporate bonds. On 19 March, the Fed extended the swap lines to a total of 14 countries. The same week dozens of central banks cut interest rates and introduced quantitative easing. The flight to cash and US\$ continued. On 23 March, for the first time in its history, the Fed offered to buy corporate bonds. This coincided with the start of a recovery on stock markets and the end of the flight to the US\$, as well as the introduction of a lockdown in the UK.

Fiscal responses in the US and Europe came in late March and early April and were massive in scale, further contributing to calming down the markets. These can be tracked using IMF (2020a) and OECD (2020b) data. As of early May 2020, the US has announced a US\$2 trillion aid package (representing approx. 11% of the US GDP) for households, businesses and local governments, including direct income injections, loans and guarantees, as well as tax cuts and deferrals for businesses. The UK government has committed £330 billion for loans and guarantees to businesses, and pledged to cover 80 per cent of earnings for salary employees and self-employed professionals, up to £2,500. At the level of the Eurozone, a total sum of EUR240 billion has been made available for lending to distressed member states via the European Stability Mechanism (ESM), while EUR100 billion has been committed by the European Commission for supporting the employment schemes of member states. Individual member states have also embarked on domestic fiscal stimuli programs.

At the level of international financial institutions, the World Bank has committed to provide

financial assistance of up to US\$160 billion to low-income countries (World Bank 2020). And as of early May 2020, the International Monetary Fund (IMF) has reported to have received more than 100 emergency financing requests, corresponding to about US\$100 billion in financing (IMF 2020b). However large in absolute terms, these sums are low compared to the amounts of money mobilised by the US and European countries to protect their own economies.

The events of March and April 2020 remind us of the crucial role of the state in and the hierarchical nature of global finance. They have confirmed the dominant position of the US\$, and thus the US state in the global financial system. They were actions of the Fed, not those of international financial institutions, that have had most impact on financial markets. The second tier in the hierarchy is constituted by economies with strong currencies, such as Japan, the Eurozone, and the UK (Cohen 2000). They depend less on the US\$, and in times of need, as we saw, can obtain privileged access to the US\$ from the Fed. To be sure, the position of the Eurozone is structurally different, given that while collectively it enjoys monetary sovereignty, individual member states do not, and so they have to rely on the ECB and the EU and their willingness (or lack thereof) to respond to a crisis.

The crisis has highlighted the subordinate position of emerging and particularly developing economies in international finance. While their performance in financial markets differed from country to country, collectively they performed much worse than developed economies, despite the fact that by early April many of them have recorded relatively few COVID-19 cases. With weak domestic currencies, they are highly dependent on the US\$, but, with few exceptions (Mexico and Brazil) have not been offered direct access to liquidity from the Fed. Their dependence on the US\$, particularly when combined with foreign debt, also limits their monetary and fiscal policies. By late April the total value of central bank interventions in all emerging and developing countries was comparable to that of the Bank of Japan (Tooze 2020). As such, these countries have to rely on international financial institutions.

Finally, the hierarchical nature of global finance also manifests itself in the relationship

between size and stock market performance of companies in recent months. This is despite the fact that much of the rhetoric and actual measures in economic policy in recent months revolve around the need to help smaller businesses. For example, EUR25 billion has been made available to the European Investment Bank for boosting lending to SMEs. Spanish and Italian governments have pledged extended public guarantees (up to EUR100 billion and 400 billion respectively) for mobilising lending to small and medium size enterprises (SMEs) (IMF 2020a; OECD 2020b). Stock markets, however, seem to expect the impacts of the pandemic to be more severe for smaller companies. Corporate size therefore seems to be an asset during this crisis. As we shall argue in the following section, this has implications for the likely processes of restructuring in the financial sector as well as among financial centres.

POTENTIAL IMPACTS ON THE FINANCIAL SECTOR AND FINANCIAL CENTRES

As shown in the preceding section, financial markets have had a major impact on the timing and scale of economic policy interventions. Monetary policy measures in turn have focused on quantitative easing, with major injections of liquidity into the financial sector, and on some occasions into the non-financial corporate sector. This emphasis on helping the financial sector and the prices of financial assets, is reminiscent of central bank policies during the GFC, and reflects close relationships between central banks and financial market players, and government and financial elites in general (Engelen *et al.* 2011).

One way to gauge the potential impact of the pandemic on the financial sector is to compare sectoral stock market indices (Table 1). Not surprisingly, there are large differences between the performance of different sectors, even though all indices declined. Health care did best, losing 10 per cent globally since the start of the stock market fall on 20 February. On the other end of the spectrum, affected by falling oil and gas prices, the energy sector globally lost 33 per cent. Real estate transactions are not popular

Table 1. *Change in the global stock market index by sector.*

Sector	19 February to 9 April
Health care	-10%
Consumer staples	-11%
Utilities	-16%
Communication services	-17%
Information technology	-18%
Materials	-18%
Consumer discretionary	-21%
Real estate	-22%
Industrials	-24%
Financials	-27%
Energy	-33%

Source: Authors based on data for S&P Global indices by sector from S&P Global Intelligence database.

in conditions of fundamental uncertainty, and almost impossible with lockdowns, with stocks in the industry falling by 24 per cent globally. Financials (made of banking, insurance, and diversified financial firms) have been the second most badly affected sector with a fall of 27 per cent. In Table 2 we collated information on the change in stock prices for selected subsectors and individual firms in finance and related industries.

Insurance firms, particularly large ones like UnitedHealth Group and Berkshire Hathaway, have been affected by the pandemic less badly than banks. Of course, in the short run, they face lower investment returns on the revenue side, and higher costs in the form of premia to be paid to individuals and companies impacted by the crisis. There are likely to be many costly disputes between insurers and the insured about the nature of interruptions caused by the pandemic and their implications for insurance contracts. In the long run, however, with increased awareness that a pandemic represents a major risk, and one with much higher probability than hitherto assumed, demand for insurance is likely to rise. After SARS, insurance companies expanded the use of exclusion clauses for pandemic risks. After Coronavirus they may become even more popular. At the same time, there will be pressure on insurers from both consumers and governments to offer comprehensive and simple solutions (Allianz 2020).

Table 2. *Change in selected stock market prices and indices.*

Group	Name	19 February to 9 April
Indices	US Banks Index	-32%
	US Insurance Index	-25%
	US Investment Banking Index	-24%
	Global FinTech Index	-24%
Banking	Bank of America	-28%
	Citigroup	-39%
	Wells Fargo	-29%
	JP Morgan	-24%
	Goldman Sachs	-22%
	Morgan Stanley	-27%
Insurance	United Health Group	-13%
	Berkshire Hathaway	-16%
Asset management	Blackrock	-17%
	Charles Schwab	-23%
Consulting	Accenture	-18%
	Marsh & McLennan	-18%
Financial infrastructure	Visa	-19%
	Mastercard	-22%
FinTech	PayPal	-15%
	Square	-31%
	Broadridge	-13%
	Global Payments	-27%
Technology	Guidewire Software	-32%
	Alibaba	-12%
	Amazon	-6%
	Facebook	-19%
	Zoom Video Com.	20%

Source: Authors based on data from S&P Global Intelligence for indices, and Yahoo Finance for individual stocks.

Banks entered the pandemic better capitalised than in the run-up to the global financial crisis of 2008. On average, the 'naked' capital adequacy ratio (actual equity to total assets) of the four banks listed as the most 'globally systemically important' by the Financial Stability Board (JP Morgan, Citigroup, HSBC, and Bank of America; see FSB 2019) has increased from 6.9 per cent in 2007 to 9.4 per cent in 2019 (S&P Global). At the same time, governments and central banks, having prevented the immediate financial panic from spiralling out of control, seem acutely aware of the need to prevent the emerging recession from triggering a financial crisis. Nevertheless, in addition to facing the huge challenge of non-performing debt, the pandemic is likely to accelerate the digitisation of banking, which will affect retail banking much more than the wholesale part of the industry, including investment banking.

Thus far, at least, investment banks have lost much less of their market value than more retail-oriented banks (Table 2).

The pandemic can accelerate changes in consumer behavior. Bank branches may stay open in many countries, but people (particularly non-millennials) have certainly been forced to use digital banking more, and give branches and ATMs a miss. When all social distancing and mobility restrictions are lifted, people are much more likely to continue using digital channels of accessing financial services. Second, the governments are likely to ramp up their support for digital finance, as one of the ways of building more digitised and resilient economies. Banknotes and coins do not only help the black and grey economy and hence tax evasion; now their unhygienic character will also be given much more attention. To be sure, the state of digital transformation in

finance varies greatly from country to country, not necessarily in much correlation with their level of economic development. In 2018 in South Korea 86 per cent of payments were made in cash, while in Japan only 18 per cent (Buchholz 2019).

The pandemic is thus likely to lead to significant changes in the provision of financial services, with retail banking in the lead. Whether the development and application of new financial technology favours incumbent banks, as they enhance their digital banking strategies, FinTech start-ups or big technology firms entering the realm of finance will depend on many factors, including regulation, and can differ from place to place. Despite growing demand for their technological solutions, a major challenge facing FinTech firms is their relatively small size and hunger for investments and cash, which will not be easily satisfied during the looming recession. The FinTech startup death rate is bound to be much higher than ever before, as the industry, which emerged in the wake of the GFC, has not yet been tested by an economic crisis. In this respect, large incumbent banks and big tech firms, the latter hoarding massive cash reserves, will have an advantage over FinTech firms. Consider large valuation losses suffered by specialised listed FinTech firms such as Square, Global Payments and Guidewire Software, in relation to smaller losses of established financial infrastructure firms like Visa and Mastercard and big tech firms like Amazon, Facebook and Alibaba.

As we stressed in the introduction, the key tenants of financial centres are not only banks, insurance companies, and increasingly FinTech firms, but also professional and other advanced business services, with corporate law, accountancy and consulting in the lead (Cassis & Wójcik 2018). In our view, demand for corporate legal services is likely to remain strong. The pandemic has disrupted business, triggering the need to renegotiate contracts. Imagine, for example, a company running a shopping mall in need to review their contracts with retailers. There are legal issues related to employees working from home. Firms going bankrupt or restructuring themselves also generate demand for corporate legal services. Accountancy firms, in

turn, will be busy helping companies account for the impacts of the pandemic on their financial statements, and disclosing these impacts accordingly.

Consulting firms will see demand for services related to corporate restructuring, digitisation, supply chains, and other projects. Resilience is bound to be one of the buzzwords used by these firms in their advisory activities (McKinsey 2020). Arguably, as the pandemic poses challenges to all areas of corporate life, from accounting and legal, through IT, to supply chains, Big Four firms, which can offer a 'one-stop-shop' for all these services, seem poised to capitalise on the pandemic-induced demand. While none of the Big Four firms is publicly traded and has a stock price, the relatively mild value losses of Accenture and Marsh & McLennan may be indicative in this regard.

Since the global financial crisis, in many financial centres of developed economies, employment in the financial sector has decreased, but this has been more than compensated by the growth in other professional and business services. This trend is likely to continue, with healthy demand for these services, relatively unthreatened by FinTech. The larger stock market losses of smaller firms, and the fact that the impact of the pandemic is on average likely to be even worse for unlisted SMEs, as they have limited access to capital markets and have to rely on bank loans, suggest that the pandemic will accelerate the trend towards more consolidation in the financial sector, a trend compounded by economies of scale released by new technology. This is a reasonable, though perhaps somewhat self-serving, prediction of Larry Fink (2020), the CEO of Blackrock for the future of asset management, and one confirmed by a recent study of the sector, focusing on the role of platform economies (Haberly *et al.* 2019).

Accelerated transition to digital finance, including the trimming of branch network is bad news for small regional and local financial centres focused on face-to-face contact with retail customers and SMEs. To be sure, the demise of bank branches has been predicted for decades, so even an acceleration of this trend implies a gradual process rather than a radical transformation. The process may be further moderated in countries

where SME financing by local banks has a strong tradition and is embedded in federal political structure, like in Germany (Wójcik & MacDonald-Korth 2015). Customer services, alongside more and more back and mid office functions are likely to move to specialised financial centres, such as Salt Lake City, Cracow or Bangalore (Kleibert 2020). Expect, however, an accelerated automation of such centres, as the pandemic will increase the costs and risks of running operations with hundreds of people crammed into a large space. With the pandemic, call and other shared services centres had to send their employees to work from home, and some may use this as a model for future operations – an alternative to or complement of automation.

An important function of FABS and financial centres is to facilitate the operation of supply chains, through the provision of capital, credit, and advisory services (Coe *et al.* 2014). With a scramble for medical equipment, and borders being partly shut down, the pandemic has highlighted the value of domestic and local supply sources. According to some views, this will lead to a localisation of supply chains in the long run (Allianz 2020). This in turn, could improve the prospects of domestic and local financial centres supporting such chains. Others however expect more automation instead, which would allow companies to retain the benefits of efficiency and diversification that comes with global supply chains, while at the same time making them more resilient to pandemics (Schattenmann *et al.* 2020). Such process would enhance demand for capital and technology (including FinTech), and consequently the services of international financial centres.

Another category of financial centres that can be affected by the pandemic are offshore centres, including tax havens. On the one hand, after a wave of borrowing money, governments will be desperate to increase tax revenues, putting measures against tax evasion and avoidance high on the agenda. This is what happened after the GFC and resulted in the OECD framework on base erosion and profit shifting. There is already some movement in this direction at the level of individual countries, with Poland, Denmark and France refusing to let companies registered in tax havens access financial aid from

the pandemic bailout packages (DW 2020). On the other hand, any increases in tax levels will increase incentives for using tax havens, and any internationally coordinated action in this area will remain difficult.

The leading national and international financial centres, and their elite employees, at the moment also working from home, are likely to return to their offices. Remote working will be more common, but the need for actual face-to-face contact with each other and with key customers will prevail. With corporate consolidation, their role as centres of financial decision-making is likely to increase. In general, the financial and economic geography may become more uneven in the wake of the pandemic. National and international financial centres are places of information-based economies, with a large percentage of their labour force able to work from home. The decline of regional and local financial centres, which may be accelerated by the pandemic, would increase the reliance of those places on retail and public sector (Centre for Cities 2020).

If there is no major second wave of infections in China, and other parts of Asia, including Singapore and Japan, one might expect the leading Asian financial centres to recover their business more quickly than New York, London and other Western centres. We should remember, however, that international financial centres rely on active international financial markets, just as the Chinese economy depends on exports to the US and Europe. We have not seen a major shift of the international financial activity to Asia since the global financial crisis. The US\$ in particular has retained its power, and as we could see, remains the currency of choice in the conditions of uncertainty, with London and New York as the unchallenged hubs of trading US\$ and US\$-denominated financial instruments (Wójcik *et al.* 2017). As such, even if the pandemic damages the Western economies more than the Asian economies, a radical shift of power to Asian financial centres should not be expected.

CONCLUSIONS

As we are writing this paper in early May 2020, when the death toll of the pandemic

continues to rise, and there is no clear exit strategy, any economic analysis is fraught with uncertainty. The data on financial markets we have assembled along with some forward-looking reflections, however, suggests clearly that actual and potential impacts of the pandemic on financial markets, sector and centres are highly uneven. To start with, the review of financial market developments highlights the significance of the state-finance nexus, and particularly the international monetary hierarchy. The Fed and the US\$ have led the show, highlighting the lopsidedness of the global financial system. Developing and some emerging economies have been challenged most, through the pressure on their currencies and financial markets, even before the pandemic itself hit them with full force. Eurozone member states have again faced the self-imposed constraints of the currency block without a common fiscal policy (Buiter 2020). Moving from the financial markets to sector, we discussed why banking, particularly its retail variety, due to new technologies, changes in customer behaviour, and the specter of non-performing loans, is likely to be challenged more than insurance or other financial and business services. We have reflected on potential impacts on financial centres, leading us to expect more challenging times for local and regional financial centres.

How do the actual and potential impacts of the pandemic compare to major trends in finance we had seen between 2008 and 2019? To start with, we may expect a slowdown or even a reversal of the wave of financial regulation triggered by the GFC, as the financial sector experiencing difficulties (not of their own making this time) is allowed more 'breathing space' (BIS 2020). We can, however, expect most governments to promote an accelerated transition to a cashless economy, and some of them to challenge tax havens. Second, difficulties faced by smaller firms, and economies of scale resulting from new technologies, could lead to more firm-level consolidation across FABS, accompanied by continued unbundling of FABS value chains. Third, FinTech, after enjoying a decade long investment boom, is facing a challenge. On the one hand, demand for new digital financial technologies is increasing, but on the

other many FinTech start-ups could struggle to survive the recession and access capital, thus offering an advantage to incumbent banks, and particularly big technology firms with deep pockets. Fourth, while businesses will be desperate to reduce costs, they will have to turn to lawyers and consultants to help them navigate through the crisis and beyond. As the crisis is shaking their finances, the preparation and verification of their financial situation by accountants and auditors will only become more important. As a result, we would expect the trend of growing business services to continue beyond the pandemic, while employment in financial services, particularly banking, continues to stagnate or decline.

Going back to the macro-level, between 2008 and 2019, we had seen a gradual, but slow growth in the role of China and other leading emerging economies in international financial governance. Consider G20, Asian Infrastructure Investment Bank or enhanced voting power in the IMF and the World Bank. Like the GFC did before, however, the pandemic thus far has exposed the weakness of international financial institutions and the primacy of national ones (Helleiner 2014). As the pandemic has spread in the US much more widely than in China, resulting in longer and more widespread lockdowns, it may accelerate the growth of the Chinese in relation to the US economy. Any challenge of the Chinese currency to the US\$, however, seems to remain a remote prospect.

The GFC has stimulated research in financial geography, and so should the pandemic. As this commentary shows, even though the current crisis did not originate in the realm of finance, it has profound financial ramifications, and in fact finance can be seen as one of the links that connect the two crises. In many countries, including the UK, the GFC was followed with austerity policies. Public health has been one of its victims, with underfunded NHS and life expectancy in the UK falling between 2014 and 2019 (McKie 2019). Social cohesion has been another victim, as austerity policies helped the politics of ultra-right populism gain ground. While after 2008, the cascade of crises, building on Walby's (2015) concept, started with finance, and moved via

economy to society, including public health, this time the order is reversed, starting with public health.

The crisis has undoubtedly highlighted the role of the state and public finance in the economy. The eminent threat is that once the pandemic is over, governments will again resort to a new dose of austerity, instead of using the crisis as an opportunity to embark on investment in infrastructure that helps to address the threat of future pandemics but also the ongoing climate and biodiversity crisis (Hallegatte & Hammer 2020). To explore such opportunities, we would advocate more collaboration between economic and financial geographers on one hand and heterodox economists on the other. Heterodox economics can offer us a better understanding of macroeconomic policies and public finance. Economic and financial geographers can offer insights into the multi-scalar nature of financial markets, and their spatial diversity, including the significance of financial centres, as well as connect heterodox economics with environmental sciences. Together we may be able to envision some alternative futures as we are moving towards a post-COVID-19 world.

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