Global Counsel

Engaged capital and investment in productive assets

Jonathan Oppenheimer

with analytical support from Global Counsel

24 February 2020

CONTENTS

EXECUTIVE SUMMARY

In the early part of 2020, the international monetary system is under stress. Persistent low interest rates threaten macroeconomic and financial stability and are contributing to rising inequality. Raising the rate of investment in productive assets is essential to address these problems and to increase economic growth rates globally. Raising investment rates is also needed to address the social problems that threaten political stability in some of the world's poorest countries.

If we are to raise the rate of investment in productive assets, we must change the relationship between financial investors and the company managers who are responsible for productive investment decisions. The majority of financial investment is either in the form of passive funds which track indices and take a hands-off approach to company management, or transactional capital deployed by traders who are focused on technical factors rather than the fundamentals that create long-term value.

To address this problem, we need a radical change in financial investor mentality. More engaged capital is needed. Engaged capital is the key to ensuring that company managers have the space needed to make sound decisions to add to productive assets in the pursuit of long-term value.

What is engaged capital?

If the relationship between financial investors and company managers is to be productive, they must have the right incentives to engage with each other and build a sustainable relationship. Engaged capital is a form of investment that involves a partnership between financial investors and company managers, with a shared long-term horizon and a focus on maximising sustainable value. There are three conditions for this: patience, scale, and tolerance of risk.

Financial investors must be patient to provide company managers with the correct incentives to invest in productive assets with a long time horizon. This should not be a blind commitment to a long holding period, but rather a willingness to base buy or sell decisions on a long-term view of company strategy and performance. This means putting less emphasis on quarterly financials. It requires analysis, dialogue, and a willingness to see through short-term fluctuations in equity prices.

This is only likely if the financial investors hold meaningful stakes in individual companies. This provides them with skin in the game to incentivise engagement and the acquisition of intangible, long-term information about company decision-making. This also allows financial investors to influence strategic decisions and to ensure company managers are not distracted by other influences, such as hitting quarterly earnings forecasts.

Higher risk – rewarded by higher expected returns - also incentivises financial investors to engage more. Moreover, the higher expected yield in return for the higher risk makes this more attractive to investors in a low interest rate environment.

Why do we need more engaged capital?

More engaged capital is the key to encouraging investment in productive assets and this is essential to address several of the most pressing challenges facing the global economy.

A shortfall in investment relative to strong global demand for savings has driven down interest rates. Long-term interest rates have been falling around the world for over three decades and a large amount of sovereign debt is now issued with negative yields. There is less room for central banks to use monetary policy to offset downturns in the economy when nominal rates are close to the lower bound. There are also concerns that low rates are fuelling asset price bubbles, with equity prices at record highs.

For several years we have seen strong investment in productive assets in China and to a lesser extent in other parts of Asia. But this has not been matched elsewhere. The rate of investment in productive assets, measured by gross fixed capital formation, has fallen in sub-Saharan Africa since the financial crisis of 2008. And globally the desire to save more has proved stronger than the desire to commit capital to productive assets.

While Africa is the world's single demographic bright spot, it has failed to attract its fair share of investment. For much of the past three decades, growth in the global working-age population has been driven by China; thirty years from now it will be driven by Africa. Much more engaged capital is needed to channel investment to areas with the greatest need and opportunity, like sub-Saharan Africa.

A combination of transitory and longer-lived factors is encouraging savings while restraining investment.

Structural factors include the need for rich countries to save more as their populations age. Many emerging economy governments want to save more and hold a higher stock of reserves to protect against economic shocks. Households in countries with weak social safety nets want to save more for precautionary purposes. Firms in countries with under-developed financial systems and few hedging options want to save more for similar reasons.

Higher demand for low-risk assets globally pushes down their return. The institutional mandates of life assurers require them to hold more safe assets even as the yield decreases. With the growing focus on ensuring the resilience of financial institutions through proscriptive regulations since the financial crisis of 2008, regulators are driving an increase in demand for low-risk assets which has not been matched by greater supply, contributing further to the fall in interest rates.

Increasing inequality can explain some of the upward pressure on savings. The rich tend to save more of their income, so rising income inequality will lower consumption and raise desired savings. To some extent the rise in inequality in market incomes is being masked by social spending which is increasingly burdensome. If this is unsustainable, it will add to the pressure on inequality and therefore savings.

There appears to be a negative feedback loop between low interest rates, wealth inequality and savings, adding to the downward pressure on interest rates. Low interest rates tend to push up asset prices and therefore the financial wealth of asset holders. Financial wealth from savings, property, and investments therefore becomes increasingly concentrated in a smaller proportion of wealthy households who consume less and save more.

An increase in the perceived riskiness of investment, combined with risk aversion by financial investors, could also act as a constraint. Investment may be perceived to be riskier because of uncertainty about future productivity growth or other factors affecting the desired level of investment. Political uncertainty – with concerns about protectionism, the US-China relationship and Brexit – could be contributing to this. Regulatory frictions and uncertainty are also likely to be constraining investment.

Taken together, the forces driving interest rates lower are more structural than cyclical and are therefore likely to be sustained. Action by policymakers and by investors is needed to rectify the situation. It won't be self-correcting. The best way to address the problem is to raise investment rates in productive capacity globally. And the key to do that is to encourage more engaged capital.

How can more engaged capital help?

The private sector has a critical role to play in raising the rate of investment. Global corporate savings have surged in recent years. The problem is not a lack of funds, but the incentives that financial investors and the financial system bring to bear on the company managers who must decide whether and when to invest in productive capacity.

For a given profit after tax, capital expenditure must compete for funding with dividends, buybacks and changes in the net financial asset position on a company's balance sheet. Dividends, buybacks and cash holdings have increased in recent years, when investment has been subdued.

An excessive focus on providing a regular flow of dividends to financial investors may be holding company managers back from undertaking productive, value-enhancing investments that benefit shareholders with a long horizon. There is also evidence that too much executive time is taken up by managing quarterly earnings announcements. Efforts to hit analyst forecasts may be constraining investment. Executive incentive schemes may be holding back productive investments, particularly when equity is about to vest, as some company managers may be more focused on meeting EPS targets.

Engaged capital can help as it implies a different relationship between financial investors and company decision makers. Informed and committed financial investors are more able than anonymous traders or passive investors to encourage company managers to focus on long-term value. Providers of engaged capital, who through analysis and dialogue understand and support – where merited – the strategy of a company, are more likely to see through short-term fluctuations in share prices.

What can be done to encourage more engaged capital?

Policymakers, financial investors, debt providers and company managers can all help to encourage more engaged capital.

Policymakers should assess the impact of their actions on the incentives of financial investors. Regulatory frictions and governance practices that inhibit engaged capital should be justified by other public policy objectives or removed.

Policymakers should reconsider the merits of promoting liquidity through ever greater trading volumes. This may encourage high-turnover trading strategies and the financialisation of the economy at the expense of engaged capital. It encourages a focus on price discovery at the expense of value discovery, which is what matters most if we are to raise investment in productive assets.

Direct equity stakes by financial investors provide the closest possible link between financial investors and company managers. These are, however, the most resource-intensive form of engaged capital investment, which is why financial investors must be willing to build large enough stakes to make this attractive.

The need for patience, scale and tolerance of risk means engaged capital is not naturally a fit for individual retail investors. However, policymakers should create frameworks to allow the long-term savings of retail investors to be collectively channelled into engaged capital. This would support investment in productive assets, while potentially boosting the value of retirement savings by allowing retail investors to access private or direct equity-like returns.

There needs to be more scrutiny of incentive schemes for company managers to see if these are constraining investment, particularly when equity is about to vest. Some executives may be more focused on meeting EPS targets and forgoing productive investment opportunities. Similarly, more attention should be given to how asset managers are rewarded.

More widespread use could be made of stewardship codes and further attention given to how these promote engaged capital. The proper scrutiny of corporate investment decisions and their long-term impact should be central to this.

Providers of engaged capital, including generational family offices, should play a bigger role in encouraging the asset management industry to engage company managers more on their investment

Global Counsel

decisions. Family offices, sovereign wealth funds, and other large institutional investors are often well-positioned and resourced to act as engaged capital investors. Managing intergenerational or national wealth inherently entails a patient outlook, normally allows for significant risk tolerance, and frequently requires only a small portion of total assets under management to be held in liquid or short-term assets for income distribution. Creating sustainable value through long-term engaged capital investments also typically aligns with family legacy goals.

1. THE MACRO PERSPECTIVE

This section looks at what is driving investment outcomes from a broad macro perspective, which means looking at how interest rates adjust to balance savings and investment, with each of these macro series determined together. It allows us to link concerns about insufficient investment in productive assets to macro debates that are dominating the attention of policymakers, such as the structural decline in interest rates, asset price bubbles, the global savings glut and global imbalances. These debates are all linked, with the problem of insufficient investment in productive assets a common theme.

Low interest rates are now an established feature of the international monetary system

Long-term interest rates have been falling around the world for over three decades (Fig 1). This is true of both nominal and real rates, adjusted for inflation expectations. And these trends can be seen in both emerging and mature economies, reflecting the increasing integration of the global economy.

Lower inflation can explain some of the fall in nominal interest rates, but not the fall in real rates. And it can't just be explained by the exceptionally loose monetary policy since the financial crisis, as the trend fall in interest rates began more than two decades earlier. While part of the decline may be attributable to cyclical factors, there is also a secular component to the decline.

These changes are troubling for economists who have systematically underestimated the durability of lower long-term rates. Forecasters at international institutions, major central banks and in the private sector have all been surprised by the persistence of the decline. Policymakers at the US Fed, for example, have been confounded by low rates which have repeatedly fallen below their expectations, even though they are the ones who set the US policy rate.

Both real and nominal interest rates have turned negative in many countries. An increasingly high proportion of sovereign debt now has a negative yield, even in nominal terms (Fig 2). According to IMF (2019b), by August 2019 there was almost $15tn in debt with negative yields, accounting for 26% of the total global bond market. In Germany, nominal yields are now negative along the entire yield curve.

Another striking feature of the data is that even though long-term interest rates are low, there is not much evidence that the return on capital has fallen (Marx et al. 2019). The return to capital, as measured from national accounts, has been flat. It fluctuates with the cycle around 10-11% before tax and 7% after tax. This implies that the risk premium for investment has increased.

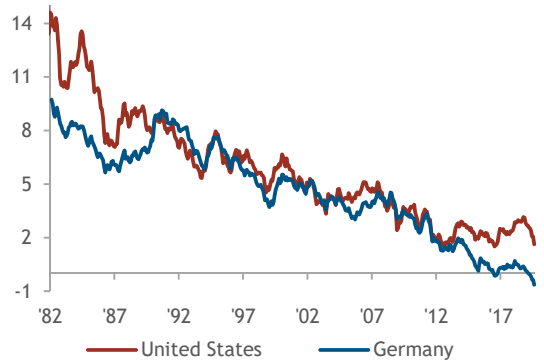
This is creating risks to growth and financial stability

Lower real rates are problematic for policymakers who are concerned about stabilising growth when nominal rates are much closer to the lower bound, leaving less room to offset downturns in the economy. The room to cut interest rates has almost been exhausted by the ECB, with the deposit rate now at minus 0.5%, raising concerns about the impact this is having on bank profitability. The US Fed has more room to cut rates, with the target for the funds rate currently at 1.50-1.75%, but the 200 or so bps of stimulus this allows is still well below the 500 bps by which rates were cut in the aftermath of the 2008 financial crisis.

Summers (2014) has suggested we are entering an age of "secular stagnation", in which output remains chronically below its potential. Even though nominal and real rates are low, the lower bound for nominal rates means they may not be low enough to spur investment sufficiently to get the economy

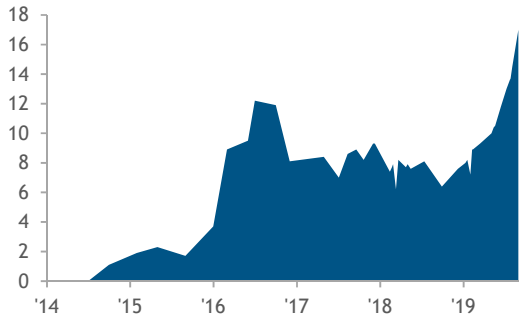
Savings and investment balances

Fig 1: Long-term interest rates
10-year government bond yields, %



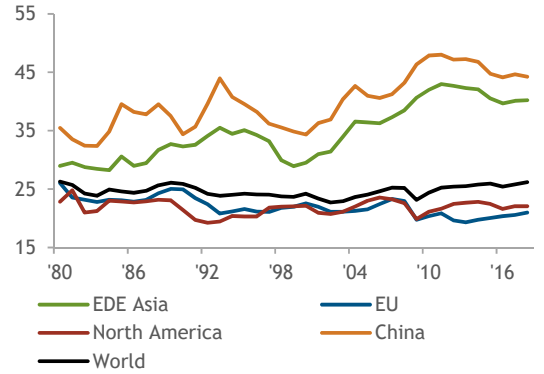
Source: Federal Reserve Board, Deutsche Bundesbank

Fig 2: Market value of negative yielding bonds
$tn



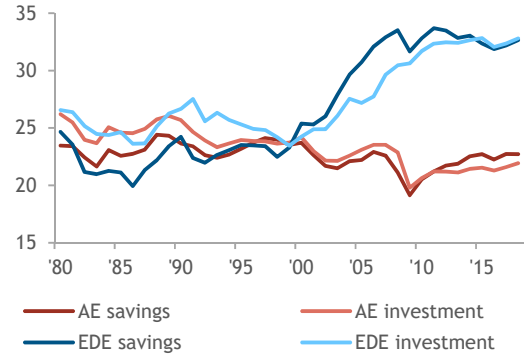
Source: Bloomberg

Fig 3: Savings rates in selected regions
% of GDP



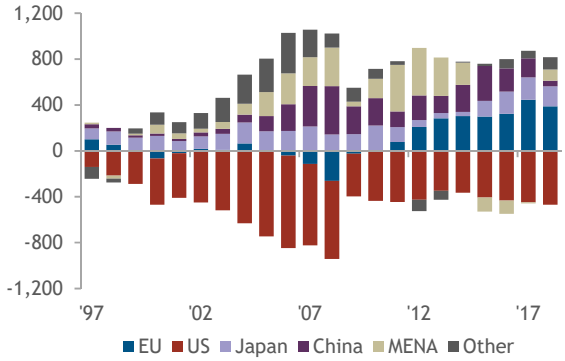
Source: IMF

Fig 4: Savings and investment rates in advanced and emerging and developing economies
% of GDP



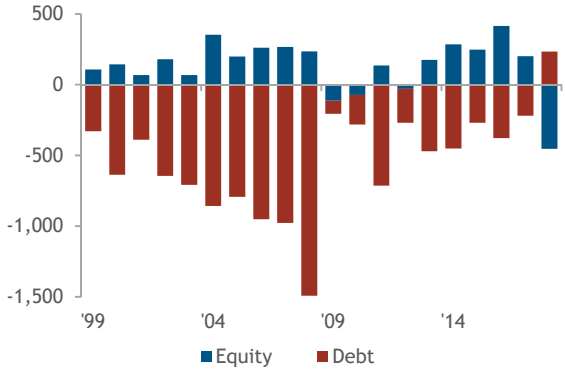
Source: IMF

Fig 5: Current account balances
$bn



Source: IMF

Fig 6: Net financial outflows from the US, UK, Eurozone and Japan combined
$bn



Source: IMF

moving again. Moreover, if wages and prices start to fall, then households and businesses may delay spending, making a recovery even harder.

There are also concerns that low interest rates are fuelling asset price bubbles, with the prices of fixed income securities now looking exceptionally high. This in turn raises concerns about the impact on the balance sheets of companies, banks and (eventually) governments, should those prices fall sharply. The price of equities also looks exceptionally high, with Bill Gross recently estimating that the 80 bp decline in the real 10-year Treasury rate this year has pushed up stock prices by 15%, and casting doubt on the sustainability of this (Gross 2019).

Low interest rates are being driven by an excess of savings globally relative to perceived investment opportunities

It is important to understand what is driving real and nominal interest rates lower, as this will also tell us something about the future path of interest rates and whether the problem is likely to be self-correcting or sustained and what sort of policy response may be required to do something about it. There are many possible explanations for the decline in interest rates. But global pressures to raise savings relative to desired investment is central to any explanation.

The global supply of savings must equal global investment demand – that is a simple accounting identity. At the national level, savings and investment levels can diverge and the difference shows up in the current account and so also in global imbalances. This relationship between the current account and the gap between savings and investment at the national level is also a simple accounting identity.

At a global level, if there is upward pressure on savings relative to investment, perhaps because people want to save more at a given rate of interest, then real interest rates must fall to maintain the overall balance between savings and investment. This is fundamentally how interest rates are determined, even if the argument is somewhat abstract as there is no single global interest rate. In an increasingly integrated global financial system, interest rates across countries do tend to converge, as savings flows are directed to investment opportunities around the world that offer the highest returns.

The data in Fig 4 shows that while global savings rates have sharply increased in emerging and developing economies, they have fallen somewhat in advanced economies. Savings and investment rates have tended to move together, but we saw large gaps emerge in both emerging and developing economies during the 2000s, with savings growing much faster than investment.

The counterpart to the divergence between savings and investment rates during the 2000s was large global imbalances, as shown in Fig 5. The large US current account deficit meant that the US was in effect borrowing from the rest of the world, including from emerging countries like China, to finance the shortfall in savings relative to investment in the US.

While investment in productive assets has risen globally, investment rates have fallen in mature economies and in Africa

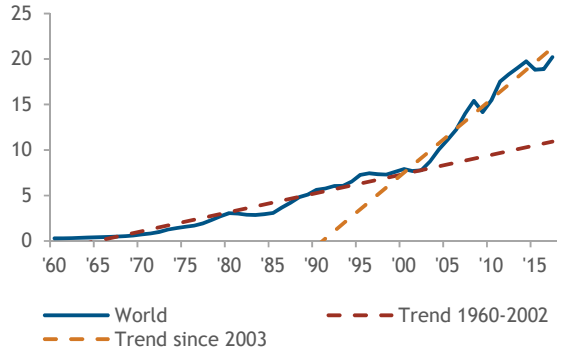
Fig 7 shows that the early 2000s saw a global boom in investment in productive assets, as measured by gross fixed capital formation. Figs 8 and 9 show that this was driven largely by Asia, and especially by China.

The data show a much more mixed picture for investment elsewhere in the world. Fig 10 shows that in the aftermath of the financial crisis there was a significant fall in investment rates in many mature

Investment in productive assets

Fig 7: Trends in global GFCF

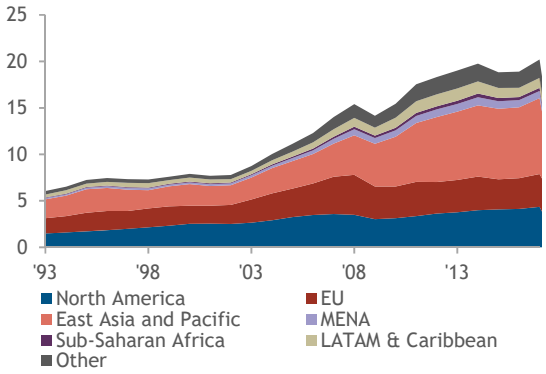
$tn



Source: World Bank

Fig 8: GFCF by region

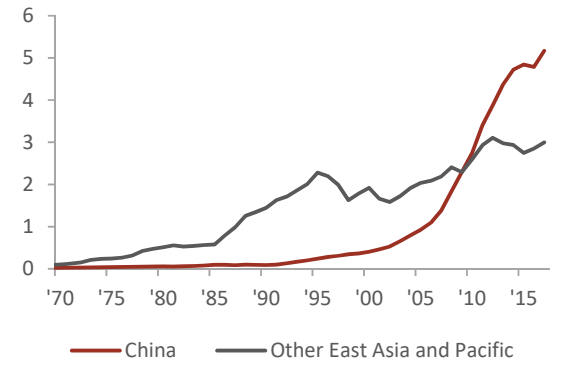
$tn



Source: World Bank

Fig 9: GFCF in Asia

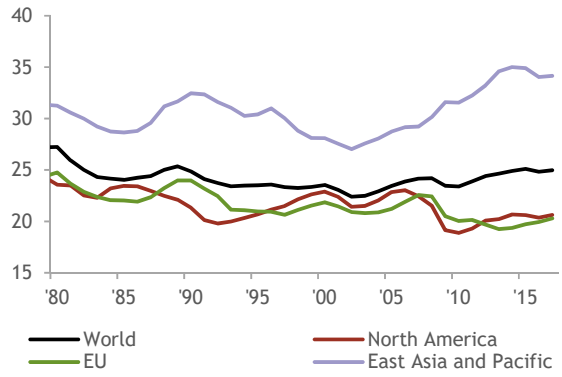
$tn



Source: World Bank

Fig 10: GFCF in selected economies

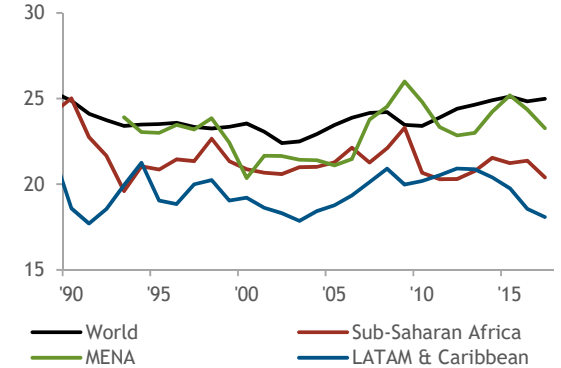
% of GDP



Source: World Bank, GC calculations

Fig 11: GFCF in selected economies

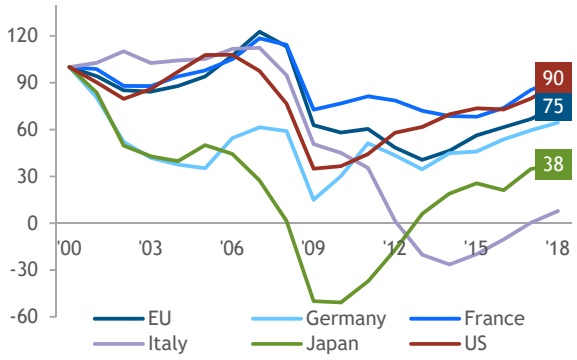
% of GDP



Source: World Bank, GC calculations

Fig 12: Net capital formation in advanced economies

2000 = 100



Source: AMECO, GC calculations

economies and since then investment rates have never fully recovered in either the US or in Europe. This is contributing to concerns about falling trend growth rates in these economies.

IMF (2019a) estimates that private fixed investment has declined by about 25%, on average, across mature economies since the financial crisis, compared with its pre-crisis trend. This is despite a large and persistent fall in borrowing costs, higher company profitability and higher expected returns on capital.

Fig 11 shows that investment rates in Latin America and in sub-Saharan Africa have been below the global average. Moreover, just as in North America and in Europe, there has been a step down in investment rates in sub-Saharan Africa since the financial crisis, which has led to a widening in the gap with the global average investment rate, which is now almost five percentage points.

The causes of the fall in interest rates are partly cyclical and partly structural, but on balance the evidence suggests that the decrease is likely to be sustained

The causes of the fall in interest rates have been the subject of debate and intense academic study. Several factors, both transitory and longer-lived, have contributed to the decline. But the Council of Economic Advisers (2015) concludes that on balance it is likely that a significant part of the fall will be long-lasting.

Cyclical or transitory factors include the exceptionally loose monetary policy in the aftermath of the 2008 financial crisis. Low policy rates and large-scale quantitative easing programmes have helped push down interest rates across the yield curve.

In the immediate aftermath of the financial crisis expansionary fiscal policies would have tended to push rates up by increasing government borrowing (equivalent to reducing government saving). But for most of the period since then fiscal policies have become progressively tighter, with borrowing as a share of GDP declining in most major economies.

Another transitory factor is the deleveraging of private sector balance sheets which followed the financial crisis. This raises savings rates, and hence pushes down interest rates, providing that debt does not migrate fully onto public sector balance sheets, as at least some of the private sector debt did in the immediate aftermath of the financial crisis, most notably because public funds were needed to recapitalise banks. It is also deflationary, as it implies lower spending by households and firms, pushing nominal rates down further.

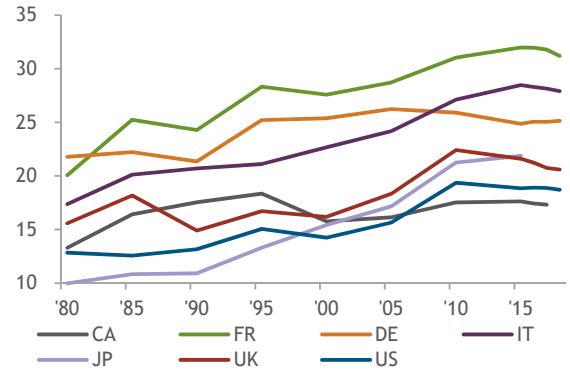
Structural or more persistent factors include what the former chair of the US Federal Reserve, Ben Bernanke, describes as a "global savings glut" (Bernanke 2005). This savings glut can be partly explained by the need to save more in rich countries with ageing populations, in order to be financially prepared for a rapid increase in the dependency ratio as more people retire relative to those of working age. But as Figs 4 and 5 show, the more important explanation is found in emerging economies, which collectively became net lenders to the rest of the world by running current account surpluses. Bernanke describes this as a reversal of the natural state of affairs, as emerging and developing countries have a greater need for capital. He explains this as partly resulting from a desire by many emerging economy governments to save more to protect themselves against the balance of payments crisis they had experienced in the 1990s.

Additional explanations, since Bernanke's speech, have also focused on household or firm behaviour in emerging countries. These partly explain rising savings in emerging countries as resulting from weak

Inequality

Fig 13: Social spending in advanced economies

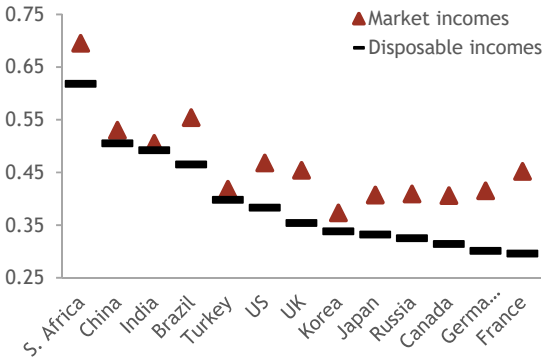
% of GDP



Source: OECD

Fig 14: Inequality before and after net state transfers

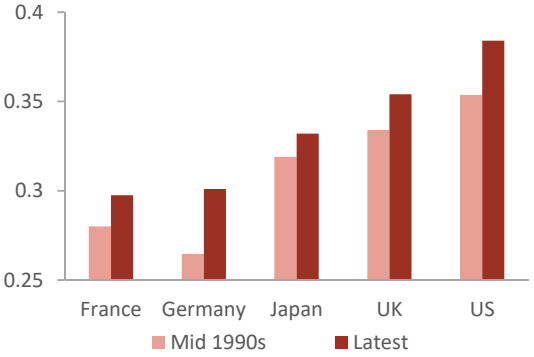
Gini coefficient



Source: OECD

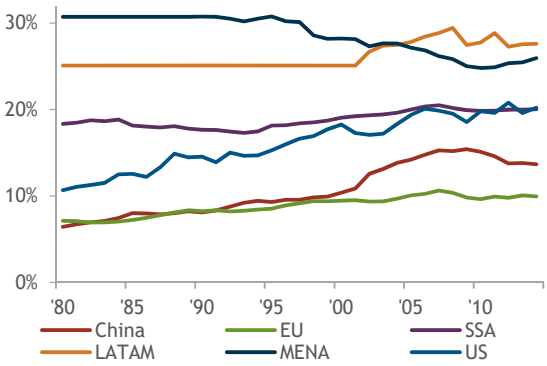
Fig 15: Inequality in disposable incomes

Gini coefficient



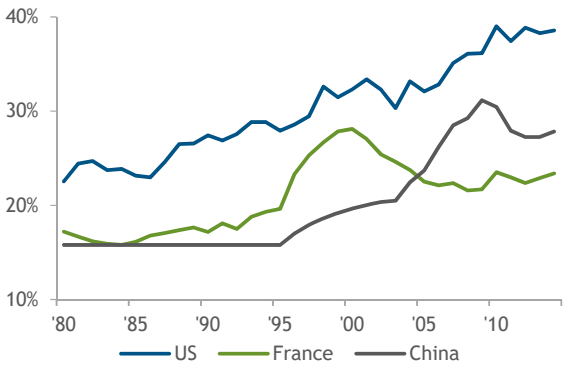
Source: OECD

Fig 16: Top 1% share of national income



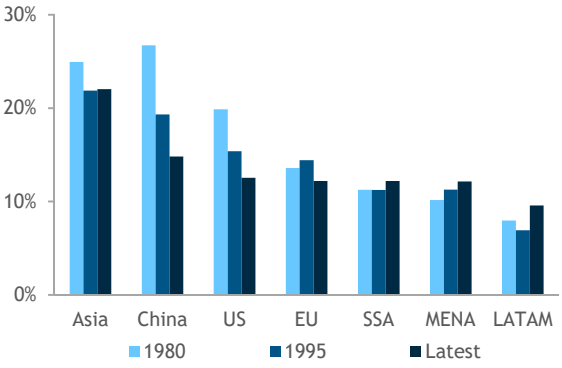
Source: World Inequality Database

Fig 17: Top 1% share of national wealth



Source: World Inequality Database

Fig 18: Bottom 50% share of national income



Source: World Inequality Database

social safety nets and relatively underdeveloped financial sectors, which make it harder for households or companies to hedge risks and so incentivise precautionary savings. Further financial deepening in emerging countries may weaken these incentives in future.

Increasing inequality can also explain some of the upward pressure on savings. To the extent that the rich save more as a proportion of their income, as the data suggests, rising inequality will result in lower consumption and higher desired saving, putting downward pressure on interest rates (Rachel and Smith 2017). To some extent the rise in inequality in market incomes is being masked by social spending which is becoming increasingly burdensome and may not be sustainable (Figs 13 and 14). If it is not, then this will put additional upward pressure on inequality and therefore savings.

Box 1: the relationship between inequality and low interest rates

People on higher incomes tend to spend less out of each additional dollar or euro earned and so have a higher marginal propensity to save. This means that there will be downward pressure on aggregate savings, and hence on interest rates, as the income distribution widens. According to Rachel and Smith (2017), the evidence suggests that higher income inequality within countries, as is illustrated in Figs. 14, 15, 16 and 18, can account for 45 bps of the observed fall in interest rates.

Inequality between countries has fallen significantly over the past two decades. However, the relationship between inequality between countries and aggregate desired savings is much less clear, as many of the countries that are fast-growing have high savings rates.

Looser monetary policy in the form of lower interest rates tends to reduce inequality, according to Ampudia et al. (2018). The poorest gain most from the direct effect of lower interest rates, while the indirect gains from boosting demand, employment and wages are spread across the income distribution.

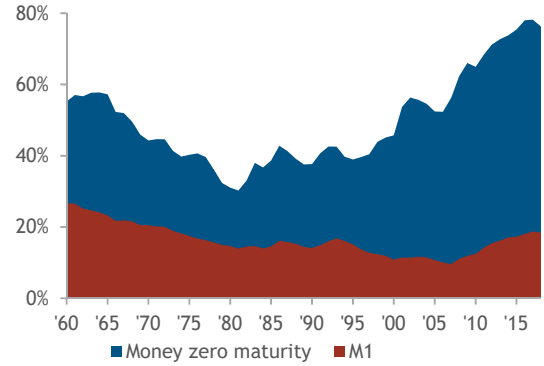
However, structurally lower interest rates are potentially a driver of greater wealth inequality. That is because low rates tend to push up asset prices and therefore the financial wealth of asset holders. Financial wealth from savings, property, and investments is disproportionately concentrated in a small proportion of households. Moreover, the most interest-sensitive components of financial wealth – such as equity or fixed income investments – tend to be held by those who are the wealthiest in the first place.

Bernanke (2005) argues, when setting out the savings glut hypothesis, that before the dotcom crash in 2000 the surge in global desired savings was attracted to the US by the growth of that sector and contributed to the rise in US equity prices. Afterwards, global savings helped drive down interest rates in the US and fuelled both high levels of home construction and strong gains in house prices. These episodes illustrate how the impact of savings flows on asset prices has the potential both to result in financial instability and, through the effect on the value of assets and therefore on wealth, also to impact on inequality.

An increase in the demand for safe assets may have contributed to the fall in the return on risk-free assets (Caballero and Farhi 2014). Several reasons have been put forward for this, including greater demand for international reserves by emerging countries, the institutional mandates of certain asset holders, such as life assurers, and new regulatory requirements following the financial crisis. These

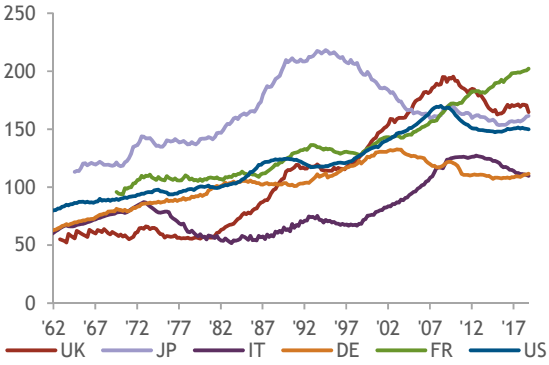
Financialisaton

Fig 19: Money supply in the US
% of GDP



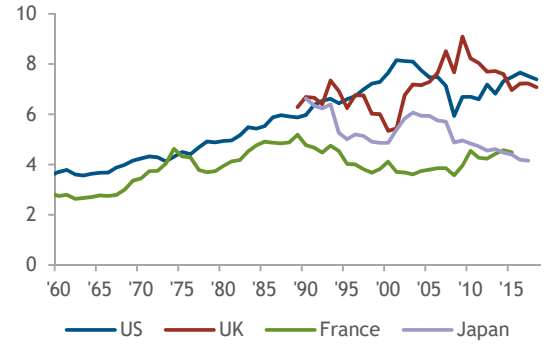
Source: Federal Reserve Board, Federal Reserve Bank of St Louis, US Bureau of Economic Analysis, GC calculations

Fig 20: Credit in advanced economies
% of GDP



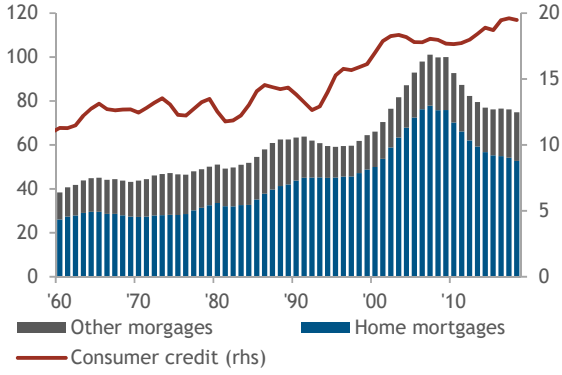
Source: Bank for International Settlements

Fig 21: The size of the financial sector
% of gross value added



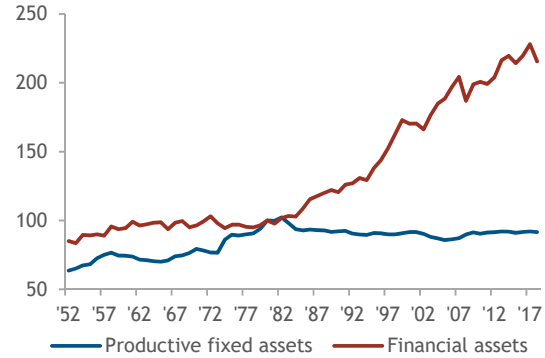
Source: CEIC Data

Fig 22: Mortgage and consumer lending in the US
% of GDP



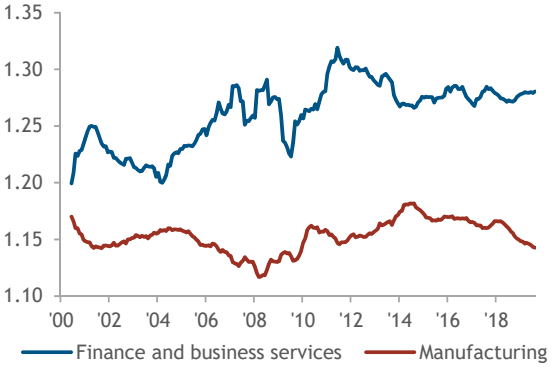
Source: Federal Reserve Board

Fig 23: US financial and productive fixed assets
% of GDP, 1980 = 100



Source: US Bureau of Economic Analysis, GC calculations

Fig 24: Earnings in the UK for selected sectors
Relative to the economy average, 6-months moving average



Source: UK Office for National Statistics

Box 2: the effects of financialisaton on the economy

The low level of gross fixed capital formation in many mature economies is perhaps surprising given the availability of credit. However, Borio (2012) notes that the financial cycle may be different from the business cycle of the real economy, with the relationship between savings, credit and investment often a loose one.

Since the 1980s, many advanced economies have seen rapid credit growth, with an expansion of broad money (as measured by money zero maturity) relative to M1 (Fig. 19). The increase in broad money, which is the result of the money multiplier in bank lending, was fuelled by financial deregulation and capital account liberalisation, which encouraged credit growth. In the US, credit as a share of GDP grew from 100% in 1980 to 150% currently, after peaking at 170% during the financial crisis. The UK experience has been even more striking, with credit rising from 55% in 1980 to 195% during the financial crisis (Fig. 20). The rise of the financial sector in major economies since the early 1980s is often dubbed the "financialisaton of the economy" (Epstein 2005).

There is a debate about the role and impact of the financial sector. Financial intermediation plays a crucial role in channelling savings to productive investment. But there are also concerns. One is financial stability, as expansionary monetary policy and excessive lending, with growth in capital flows and financial innovation, can lead to bubbles and eventually a financial crisis (Brunnermeier and Schnabel 2015).

Another concern is the relationship between the size of the financial sector and economic growth. Cecchetti and Kharroubi (2012) find that the size of the financial sector is positively correlated with labour productivity growth, but only up to a point. Once a threshold is reached, the size of the financial sector becomes a drag on productivity. The authors determine the threshold to be at 100% of GDP for total private credit and 90% of GDP for bank credit. Similarly, once the share of the financial sector in total employment rises above 3.9%, labour productivity growth is again negatively impacted. Moreover, the faster the financial sector grows, the slower is labour productivity growth.

Other research finds a negative relationship between growth of the financial sector and productivity growth. Cecchetti and Kharroubi (2015) argue that with higher wages in the financial sector, the best talent goes into finance instead of more entrepreneurial and R&D intensive sectors. Instead of investing in productive but high-risk and low-collateral businesses, banks will lend to high-collateral, low-risk borrowers.

The data shows a rapid growth in financial assets relative to productive assets in the US (Fig. 23). Likewise, in the UK, research shows that the increasing orientation of the non-financial sector towards financial activities is leading to lower physical investment, with long-term concerns for productivity (Tori and Onaran 2018).

developments have occurred at a time when the supply of safe assets by the US and other mature economies has failed to keep pace with the growing demand.

The securitisation boom in the run up to 2008 may have been encouraged by the increased demand for safe assets. The financial crisis, however, showed that many securitised assets were much riskier than it appeared. The same can be said of some sovereign debt that had previously been thought to be risk free, with a notable differentiation appearing between the perceived risks of holding euro-denominated sovereign debt according to the issuer.

The combined effect, after the financial crisis, according to Caballero and Farhi (2014), was a realisation that the supply of genuinely safe assets was much lower than realised, meaning the mismatch in demand and supply for safe assets globally increased substantially, with a dramatic impact on asset prices.

Another factor to consider is the division of national income between labour and capital, which has been significantly altered, with the labour share falling by 4 percentage points in recent years. A rising share of income earned from owning capital at the expense of labour will tend to push up desired saving if the propensity to save out of capital income is higher than it is from labour income. There is, however, insufficient empirical data on saving rates from these different sources of income to establish whether this contention is correct, according to Rachel and Smith (2017).

There are several persistent factors that may also be putting downward pressure on desired investment

One argument put forward by Gordon (2012), which is sometimes described as "growth pessimism", is that the rate of technological progress is slowing and will be lower in future. It is argued that there may be fewer major technological breakthroughs of the sort that have propelled growth in the past, such as the combustion engine, electricity, and computing power. However, this argument is criticized for being conjectural and lacking firm evidence.

Adverse demographics, with ageing populations not only in mature economies, but also in China and some other emerging economies as the current demographic bulges there unwind, could lower productivity growth through several channels. For example, the Council of Economic Advisors (2015) suggests that this could reduce the incentive to incur the fixed costs of R&D and innovation now, as the future payoff will be lower, or weaken the effects of scale on the incentive to generate new knowledge.

Declining growth in the working-age population in the future could also have a more direct impact on investment rates now. Quite simply, less investment is needed to equip with new capital a labour force that will grow more slowly in future.

It may also be significant that the relative price of capital goods fell by 30% in the 1980s and 1990s. Explanations include better R&D, which has made investment goods more efficient, and falling commodity prices, which have pushed down the cost of infrastructure and other commodity-intensive investments (Rachel and Smith 2017; IMF 2014).

The fall in the price of capital goods, whether software, IT equipment or heavy machinery, means a smaller share of GDP must be committed to maintain a given level of investment, but also incentivises firms to do more investment by substituting labour for capital. Which effect dominates depends on the substitutability of labour and capital in production, which most studies suggest is insufficiently large for the latter effect to dominate the former. Empirical studies, such as Rachel and Smith (2017), therefore conclude that a fall in the price of capital goods has contributed to a fall in desired investment spending.

An increase in the perceived riskiness of investment could also act as a disincentive to invest and reduce the overall desired level of investment. This could result from uncertainty about future productivity growth or uncertainty about other factors affecting the desired level of investment described above. It is possible that political uncertainty – which has been particularly high recently due to concerns about protectionism, the US-China relationship and Brexit – could be contributing to this.

Box 3: empirical evidence on the causes of lower real rates

When combined, Rachel and Smith (2017) estimate that lower expectations for trend growth and shifts in desired saving and investment together account for about 400 of the 450 bp decline in the global long-term neutral interest rate since the late 1980s.

The increased desire to save due to existing demographic forces can account for 90 bps of the fall in real rates, while higher inequality within countries can account for 45 bps, and a preference for higher precautionary savings by emerging market governments following the Asian crisis in the 1990s can account for another 25 bps.

Slower global labour supply growth in future and headwinds to further innovations in technology may cause global growth to slow by up to 1pp over the next decade and expectations of this decline could account for about 1pp of the fall in real rates.

The decline in desired investment linked to a fall in the relative price of capital goods can account for 50 bps of the fall in real rates, while a preference shift away from public investment projects can account for 20 bps. The rising spread between the return on capital and risk-free rates, which has reduced desired investment, can account for a 70 bp decline in real interest rates.

The stresses in the system are being magnified by a failure to channel excess savings to where investment opportunities are greatest

Capital markets of mature economies are now tightly connected, while emerging market economies are becoming increasingly integrated into the global financial system. Economic and financial integration over the past three decades means that real returns on assets are now determined largely by a set of common factors (IMF 2014). But low-income economies remain partially – and in some cases largely – segmented from the global capital market.

The decrease in investment opportunities, described above, is largely concentrated in mature economies. However, the fall in interest rates that is the result of desired investment failing to keep pace with desired savings, will be harder to sustain in the long term if there is a stock of accessible new investment opportunities in emerging and developing countries that offer high returns. The question is whether the international monetary system can ensure that the flow of excess savings in mature economies will reach the investment opportunities in these new markets.

Bernanke (2015) argues that to the extent that financial integration enables savings to finance productive investment opportunities anywhere in the world, this will help to reverse the decline in global interest rates and therefore reduce the risk of secular stagnation in mature economies. Moreover, as the Council of Economic Advisors (2015) notes, it should help to boost mature economies directly now, due to the downward pressure on the exchange rate as capital flows out, which would help to raise exports in those economies.

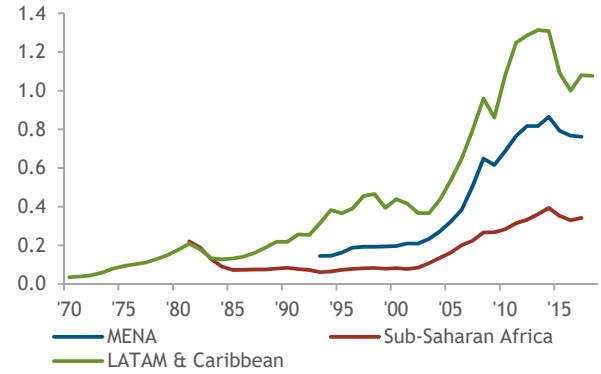
This means channelling savings to frontier markets, particularly in sub-Saharan Africa

The working-age populations of both the mature economies and China are now declining and in the case of China, the rate of decline will increase over the next two decades. The rate of growth in the working-age population is also slowing in both India and the rest of Asia.

Investment in sub-Saharan Africa

Fig 25: GFCF in emerging and developing regions

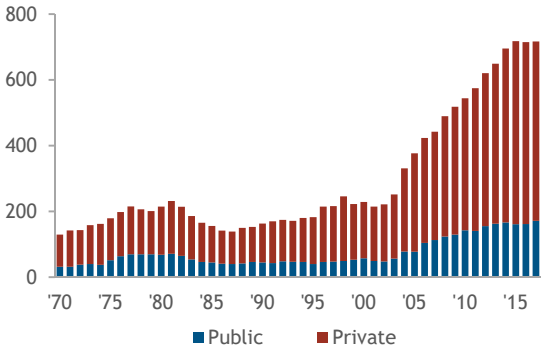
$tn



Source: World Bank

Fig 26: GFCF in sub-Saharan Africa (SSA)

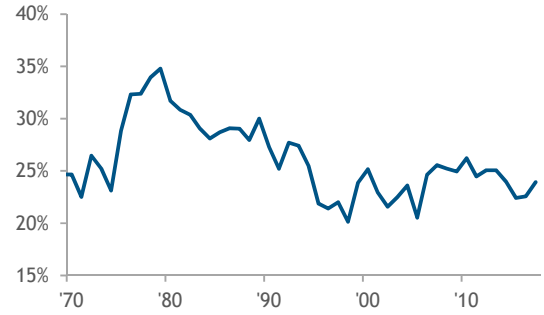
$bn



Source: IMF

Fig 27: Public share of total GFCF in SSA

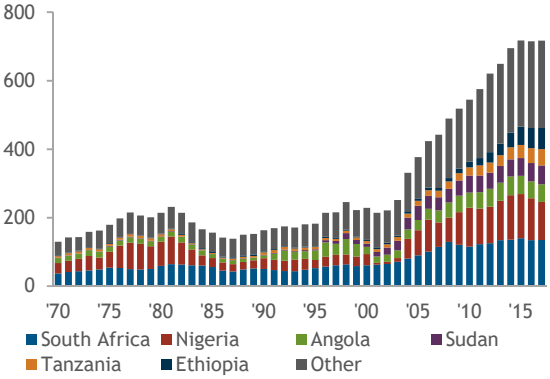
%



Source: IMF

Fig 28: GFCF in SSA by country

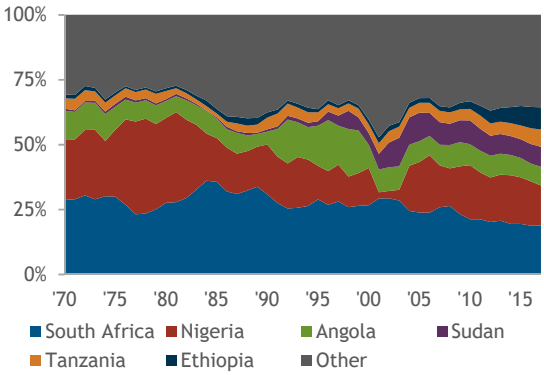
$bn



Source: IMF

Fig 29: GFCF share in SSA by country

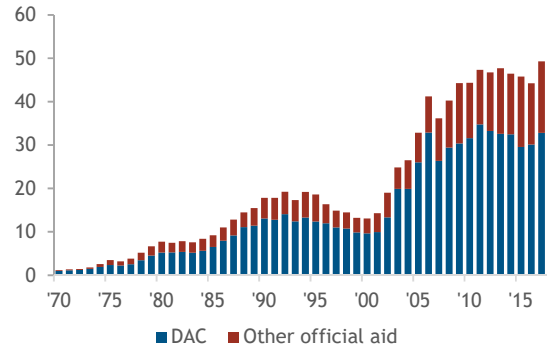
Share of total



Source: IMF

Fig 30: Official development aid for SSA

$bn



Source: World Bank

The single demographic bright spot is Africa. For much of the past three decades growth in the global working-age population has been driven primarily by China; three decades from now it will be driven mostly by Africa.

Africa alone currently accounts for 29% in the growth of the global working-age population. By 2030 Africa will account for 52% and by 2040 three-quarters of the entire growth in the global working-age population will be in Africa (Fig 35).

The investment needs of low-income or frontier markets are very different from mature economies. Investment in mature economies is mostly to upgrade the existing capital stock, for example by replacing machinery or upgrading software, or in new technologies through R&D and innovation. Investment in Africa is more heavily concentrated in infrastructure, such as in transport or power supply. This is one reason the investment horizon and the risk-return profile are different in frontier markets.

There is still a large gap between investment levels and the investment needs of developing countries, particularly low-income countries. According to Global Infrastructure Outlook, the gap between infrastructure investment needs and current trend rates in Africa alone is $1.7tn in total between now and 2040. $244bn of the gap is in energy, $251bn in water, $313bn in telecoms, and $865bn in transport.

Box 4: recent trends in cross-border capital flows

FDI has surged in EMEs in all major regions since the mid-1990s, increasing both as a ratio of GDP and as a share of total gross external liabilities (Arslan et al. 2018). Recently, there has been a decline in cross-border capital flows, according to McKinsey Global Institute (2017), but this is explained by a fall in volatile cross-border bank lending. FDI and portfolio equity investments have risen. FDI and equity flows now account for 69% of cross-border capital flows, up from 36% before 2007.

Not all FDI is greenfield. As Arslan et al. (2018) note, much of it comes from financial centres and may not be productive. Balance of payments statistics regard intra-company loans as FDI, as it is assumed this type of debt does not come with hard obligations. This means not all FDI is being used to finance investment in productive assets, but intra-company loans of this sort are typically a small component of FDI in emerging and developing economies.

Globally, 27% of equities are owned by foreign investors, up from 17% in 2000, while 31% of bonds were owned by a foreign investor in 2015, up from 18% in 2000. Developing countries account for 14% of financial assets and liabilities, up from 8 and 9% respectively in 2007 (McKinsey Global Institute 2017).

Global imbalances have declined in recent years. Emerging and developing countries have become net recipients of capital for the first time in a decade, partly because many emerging economy central banks have stopped accumulating reserves.

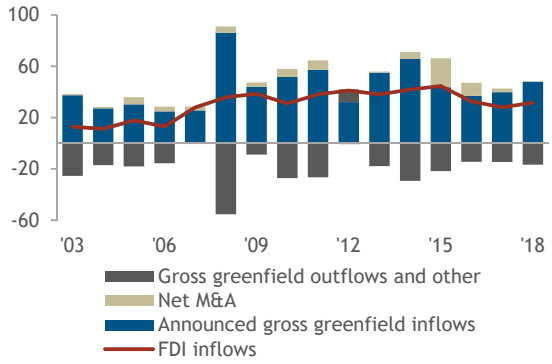
Conclusion – issues for policymakers and other stakeholders to consider

A. The international monetary system is under great stress, with low interest rates threatening macro stability and financial stability. An essential part of the solution is to raise the rate of investment in productive assets globally.

Investment in sub-Saharan Africa

Fig 31: Net FDI inflows to SSA

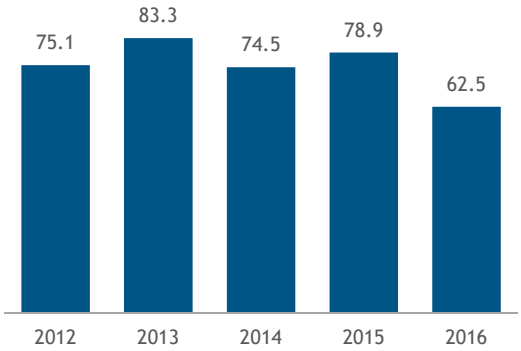
$bn



Source: UNCTAD, GC calculations

Fig 32: Infrastructure funding levels in Africa

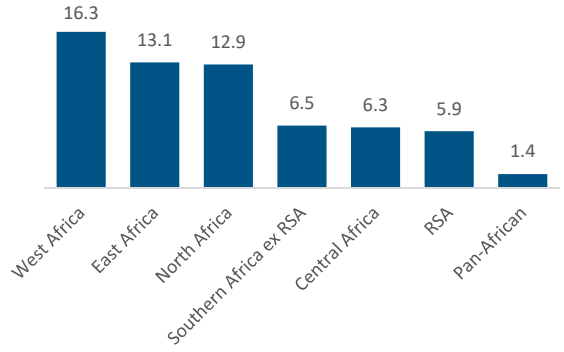
$bn



Source: African Development Bank

Fig 33: Infrastructure funding in Africa by region

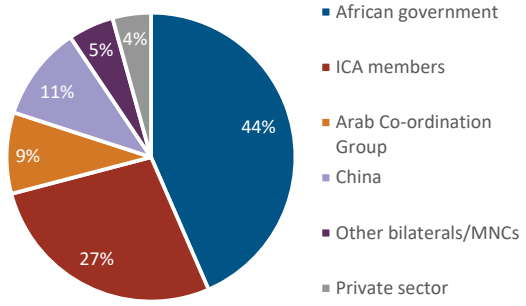
$bn



Source: African Development Bank

Fig 34: Infrastructure funding in Africa by source

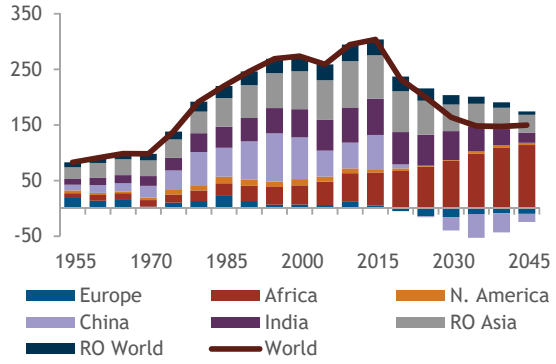
$bn in 2016



Source: African Development Bank

Fig 35: FIve-year change in working age population

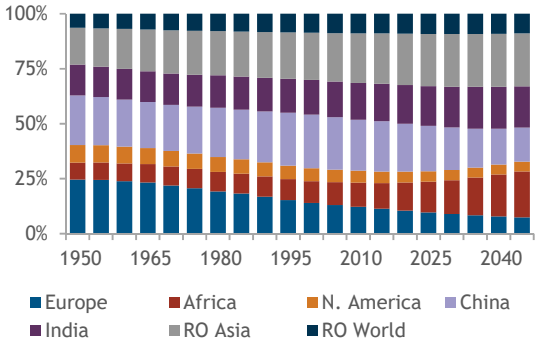
People, m



Source: UNDESA, GC calculations

Fig 36: Share of working age population

%



Source: UNDESA, GC calculations

B. A concerted effort to address this problem will not only reduce risks to growth and to financial systems; it will also help reduce global imbalances, which have become a political problem as well as an economic one.
C. The factors that are driving interest rates lower are more structural than cyclical and are therefore likely to be sustained. Action by policymakers is needed to rectify the situation. It won't be self-correcting.
D. Inequality is both a cause and a consequence of the global savings glut. Rich people save more, so inequality raises savings rates. Low interest rates push up asset prices, which increase wealth inequality.
E. More productive public investment needs to be undertaken in mature economies, freed from the constraints of overly-restrictive fiscal rules that fail to look at both sides of the public sector balance sheet. The intention of some countries such as the UK to reassess their fiscal framework is welcome.
F. Calls by the IMF and the ECB for fiscal expansion by countries that have the fiscal space are welcome and ought to be heeded. Support for investment should be the priority. More thought needs to be given to the coordination of monetary and fiscal policies in an environment where monetary space is severely restricted.
G. The IMF and the OECD should encourage governments to audit whether and how their fiscal policies are sufficiently supportive of private investment in productive assets. At a minimum, governments must avoid tax distortions that penalise investment in productive assets.
H. If interest rates are to fall globally, then it is essential that excess savings – in both mature economies and fast-growing emerging economies like China – can flow to where the investment opportunities are greatest.
I. A rising share of future global growth must come from Africa, as that is where almost three-quarters of global growth in the working-age population will come from twenty years from now. Unlocking investment opportunities in Africa is part of the solution to low global interest rates.
J. Support is needed in Africa and in developing economies elsewhere to improve investment climates. This involves improving macro stability, liberalising investment regimes, strengthening property rights, reducing corruption and avoiding unnecessary regulation.
K. New approaches may be needed to the financing of infrastructure in Africa and in developing countries elsewhere. This often requires public-private partnerships. Development banks have an important role to play. Debt securitisation helps draw in private financing.


SPERO OPTIMA
OPPENHEIMER


Global Counsel

2. THE CORPORATE FINANCE PERSPECTIVE

This section looks at what is driving investment outcomes from a corporate perspective, focusing on the incentives and constraints facing the executives who are charged with making decisions to invest in productive assets. This allows us to link the issue of investment in productive assets to other developments that are potentially concerning, such as increasing payouts by companies, in the form of buybacks and dividends, and the accumulation of cash on many company balance sheets, which may be at the expense of investment in productive assets. It also allows us to look at the impact that incentive schemes and quarterly reporting may be having on decisions by company managers.

Around the world, non-financial companies have become net lenders to the rest of the economy

Declining investment across mature economies has been accompanied by a rise in corporate savings. Global corporate saving has risen from below 10% of GDP to nearly 15% in the 2010s, according to Chen et al. (2017). This increase has been seen across industries and countries, although the increases in Japan, Korea and China are higher than those in the US and the UK. This means that now nearly two-thirds of global investment is funded by non-financial corporates, in contrast to the 1980s, when most was funded by household savings.

With corporate saving exceeding investment, the corporate sector is now a net lender to the rest of the economy. From 2002 to 2005, Gruber and Karmin (2015) estimate that non-financial companies developed small positive net lending positions, which then ballooned after the global financial crisis, exceeding 3% of GDP for a while.

Figs 37 and 38 show there was a surge in non-financial corporate saving rates in the US following the financial crisis, which has since fallen back to average 2.7% of GDP since 2014, which is consistent with the pre-crisis average of 2.6% between 1990 and 2007. However, Fig 37 shows that corporate savings have been a much bigger contributor to the overall savings rate in the US. Moreover, Fig 38 shows how US companies have become significant net lenders, with net lending totalling $659bn since 2003.

Capital investment must compete for funding with dividends, buybacks and cash accumulation

Corporate savings are defined as undistributed profits and can be expressed as profit after tax net of dividends. Net corporate lending (NCL) is equal to corporate savings less capital investment. The following equations, based on Dao and Maggi (2018), explain the relationship between the sources and uses of NCL:

$$NCL = corporate\ savings - capital\ expenditure$$

$$= profit\ after\ tax - dividends - capital\ expenditure$$

$$= \Delta financial\ assets - \Delta financial\ liabilities$$

The change in financial assets includes net acquisitions and disposals from M&A activity. Assuming no new equity is issued through a share offering, then:

$$\Delta financial\ liabilities = \Delta debt\ liabilities - buybacks$$

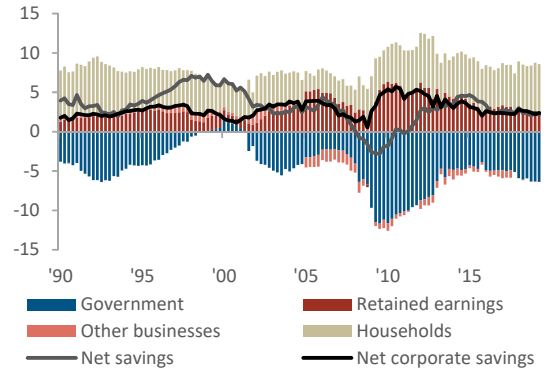
By combining these equations and rearranging the terms, it follows that:

$$profit\ after\ tax = capital\ expenditure + dividends + buybacks + \Delta NFA$$

where $\Delta NFA = \Delta financial\ assets - \Delta debt\ liabilities$

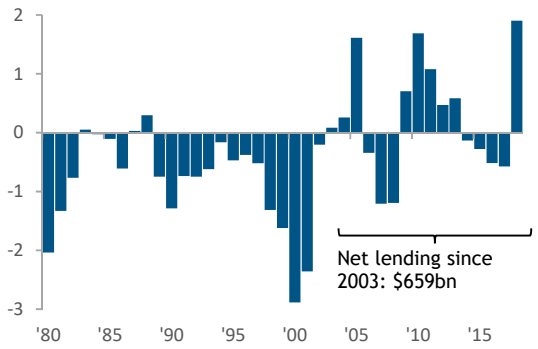
Corporate savings and investment

Fig 37: Net savings in the US economy
% of GDP



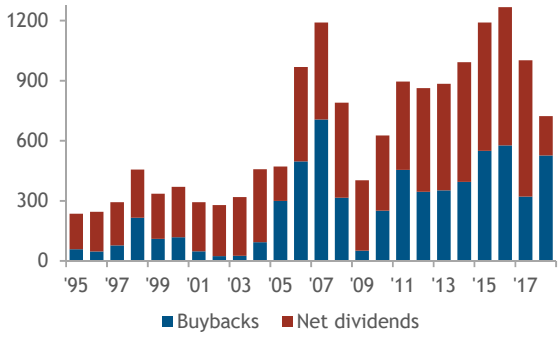
Source: Bureau of Economic Analysis, GC calculations

Fig 38: Net corporate lending in the US
% of GDP



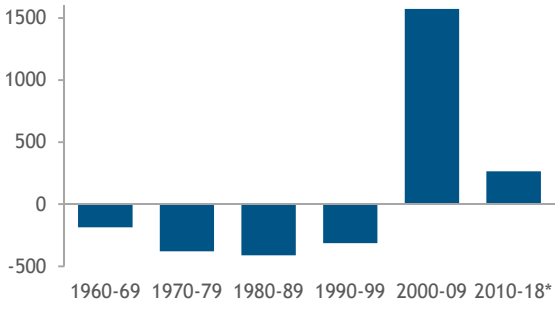
Source: Bureau of Economic Analysis, GC calculations

Fig 39: Corporate payouts in the US
$bn



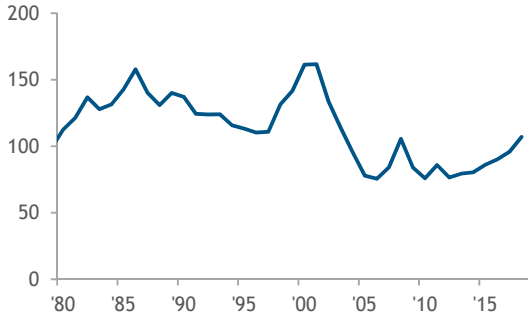
Source: Bureau of Economic Analysis, GC calculations

Fig 40: Net acquisition of financial assets in the US
$bn



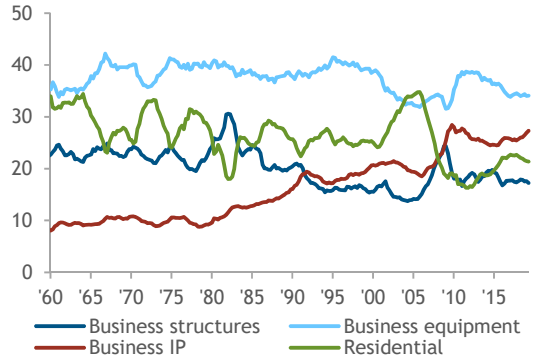
Source: Bureau of Economic Analysis, GC calculations

Fig 41: Productive investment relative to company profits in the US
%



Source: Bureau of Economic Analysis, GC calculations

Fig 42: IP investment as a share of private fixed investment in the US
%



Source: Bureau of Economic Analysis, GC calculations

This relationship shows that for a given profit after tax, capital expenditure must compete for funding with dividends, buybacks and changes in the net financial asset position on a company's balance sheet.

Note that at the level of an individual firm, not all capital expenditure leads to gross fixed capital formation and hence an expansion in the productive capacity of the economy, as this may include, for example, the purchase of capital equipment from a competitor. This wedge between capital expenditure and GFCF will, however, net out when aggregated across all firms.

This relationship implies that, at the level of the individual firm, capital expenditure must compete with M&A activity for funding. However, for some firms M&A will be a source of funding from disposals, while for others it will be a use of funding from acquisitions. The effects of M&A will also net out when aggregated across all firms.

We cannot infer anything about causality from these relationships alone. But this raises the question about whether observed trends in dividends, buybacks and cash accumulation are putting downward pressure on capital investment and whether – perhaps indirectly – distortions that may be incentivising higher dividends, buybacks or cash accumulation could also be skewing investment choices.

Dividends, buybacks and cash holdings have increased, but to varying extents

The data for the US suggests that dividend payments, buybacks and net financial asset accumulation have all been strong in recent years. Fig 40 shows a surge in the net acquisition of financial assets before the financial crisis, with a slower accumulation since 2010. Fig 39 shows that while buybacks fell during the financial crisis from a peak of over $700bn in 2007, they have since recovered to average around $420bn each year since 2010. Dividends have also been strong and have outstripped buybacks in all but two years since 2010.

Chen et al. (2017) look at international data at the firm-level and in national accounts. They find that companies have adjusted their balance sheets over the past three decades using a combination of dividends, buybacks and cash accumulation, with the mix varying over time. Similar to the US data shown here, Chen et al. find that companies were more likely to stockpile cash in the early 2000s and there were fewer buybacks in the immediate aftermath of the financial crisis of 2008. Gruber and Karmin (2015) look at G7 countries and also find that dividends, buybacks and cash accumulation have all played a role, but with dividends and buybacks the most important.

Many other studies looking at changes in company balances sheets around the world have tended to emphasise the role of cash accumulation by companies. Dao and Maggi (2018) find that the rise in corporate savings has mostly shown up as higher cash holdings, with dividends and buybacks playing a smaller role in their sample. Chen et al. (2017) find that buybacks have become more common but conclude buybacks cannot account for most of the increased savings and net lending by companies in OECD countries, which have been mostly used to improve the net asset position on balance sheets. Dao and Maggi (2018) find that dividend payments have increased, but more slowly than company incomes, and that excess savings have mostly been used to accumulate cash.

Buybacks do not appear to be causing lower investment and may even improve investment decisions, but commitments to maintain dividends may restrain investment

Survey evidence in BEIS (2019) suggests executives make investment decisions before considering distributing funds to shareholders in the form of buybacks. Moreover, asset managers say they want companies to exhaust all organic value-enhancing investments before returning surplus cash.

Box 5: what impact does M&A activity have on productive investment?

One school of thought sees M&A as improving efficiency and enhancing value. Jensen (1993) finds that M&A can improve the efficiency of capital allocation, discipline managers against undertaking unnecessary and unprofitable investments, and eliminate excess capacity.

However, several other studies have also concluded that M&A may be inefficient and instead of creating value, mostly transfers wealth from one group of stakeholders to another, namely the shareholders of the companies involved in the transaction.

One category of M&A transaction that is evidently wealth transferring, rather than wealth creating, are those motivated by tax efficiency. The reduction in the tax bill benefits shareholders at the expense of other taxpayers.

A more subtle argument by Shleifer and Summers (1988) puts the emphasis on the importance of implicit contracts between a firm and stakeholders, such as employees and suppliers. These implicit contracts are necessary for the efficient running of a business, as explicitly contracting for all possible contingencies is impossible. A hostile takeover effectively rips up these implicit contracts and much of the takeover premium comes from transferring wealth from these other stakeholders to shareholders.

A separate study by Shleifer and Vishny (2002) finds firms may have an incentive to manipulate earnings to boost their share price in order to make acquisitions or to defend against unwelcome takeovers. Acquisitions may be motivated by overvalued bidders who want to offset what management anticipate would be negative returns on their shares. In these cases, acquisitions are more likely to be financed by stock, rather than cash. This type of activity can flourish, even in the absence of efficiency gains from a takeover.

It is an empirical question whether the efficiency-seeking motives tend to outweigh the rent-shifting motives. For our purposes, however, what matters is that non-efficiency seeking motives for M&A exist. At a minimum this may distract company managers from their core activity, which should be to seek productive investment opportunities and to operate their businesses efficiently. The risk is that too much managerial time is wasted on either pursuing or defending against M&A transactions, when that time could be better spent seeking out, evaluating and executing productive investment opportunities. More malignly, it is possible that profitable productive investment opportunities may be knowingly forgone as part of an effort to boost earnings and valuations.

This confirms earlier surveys which show that while there may be a correlation between low investment on the one hand and high buybacks and the accumulation of financial assets on the other, managers typically seek to exhaust productive investment opportunities first, before deciding on buybacks and then investing any remaining surplus in financial assets (Brav et al. 2005).

This suggests buybacks tend to happen when growth opportunities are limited. Moreover, Grullon and Michaely (2004) conclude that the market tends to respond positively to buybacks in these circumstances.

Buybacks can be a more efficient way to distribute excess cash than dividends, according to BEIS (2019), as shareholders self-select who receives the payout (by selling their shares) in contrast to what happens

when dividends are paid to all shareholders. Those with good alternative investment opportunities have a stronger incentive to sell their shares when a buyback is offered.

The evidence also shows that managers are often focused on meeting commitments to pay dividends to shareholders – and that this may come at the expense of taking advantage of productive investment opportunities. Dividends are seen as an inflexible commitment by executives, unlike buybacks, and this can sometimes distort investment decisions (Brav et al. 2005).

This means that a rigid focus on dividends might be contributing to the fall in investment. It is interesting, in this connection, that Bill Gross recently advised investors who are seeking to protect themselves in a world where interest rates are low and asset valuations are high, to focus on high-yielding, secure dividend stocks (Gross 2019). If other investors share that view, then this could provide a stronger constraint on productive investment in future which, ironically, would also put further downward pressure on interest rates.

The increase in corporate savings probably reflects other structural changes in the economy, including increasing concentration and mark-ups

There is growing concern among policymakers that markets are becoming less competitive, allowing dominant firms to charge higher prices.

According to IMF (2019a), analysis of firm-level data suggests that most of the increase in corporate savings has been driven by incumbent firms rather than compositional changes due to firms entering or exiting the market or taking market share from each other. The increase in savings by incumbents is stronger in industries that are concentrated, either in sales or assets, or where mark-ups have risen, reflecting an increase in market power. The data shows that firms with the highest mark-ups have seen the largest increase in their mark-ups, with the top decile of the mark-up distribution increasing their weighted-average mark-up by 30%, compared to just 2% for all other firms. It also shows that the intra-firm rise in savings is predominantly driven by larger firms.

Gutiérrez and Philippon (2017) suggest there may be a simple explanation for why industries that are becoming less competitive, with higher mark-ups, are seeing less investment. As competition falls and a firm's market power increases, the firm can increase profits by raising prices and reducing output. This in turn leads the firm to reduce their demand for physical capital to produce that output and so it invests less.

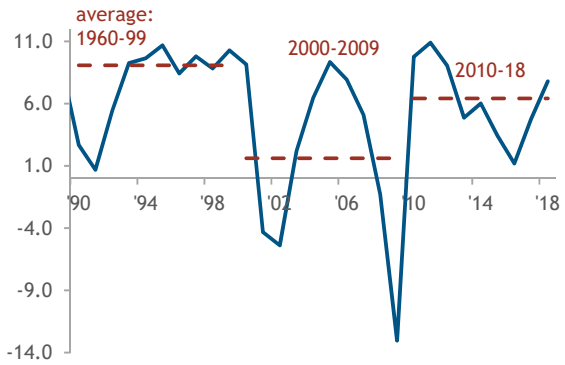
IMF (2019a) finds that a 10pp increase in a firm's mark-up is associated with a statistically significant 0.6pp decrease in the capital investment rate. For top decile firms, the average increase in mark-ups is associated with a 2pp decrease in the investment rate. Moreover, the analysis suggests that if mark-ups had remained stable since 2000, the capital stock today would be about 3% higher and output about 1% above current levels in the average mature economy. This is sufficiently large for the impact of increasing market power on investment to be a cause for concern by policymakers.

Chen et al. (2017) note that the rise in corporate savings and net lending has been associated with a decline in the labour share of income. That may also be related to the increasing market power of firms and declining competition.

Dao and Maggi (2018) argue that the rise in corporate savings may have contributed to larger current account surpluses in those countries where wealth inequality is high, and the corporate profit share has risen at the expense of a declining labour income share. With capital income (from corporate profits)

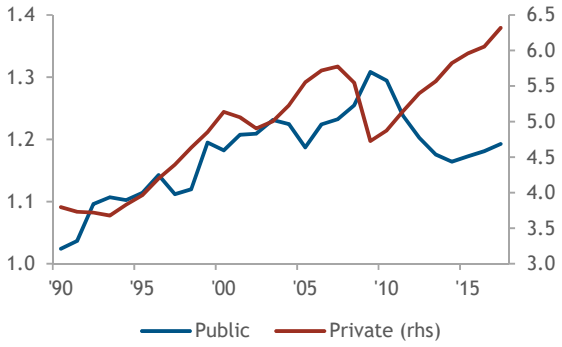
Corporate savings and investment

Fig 43: Productive investment growth in the US
% yoy



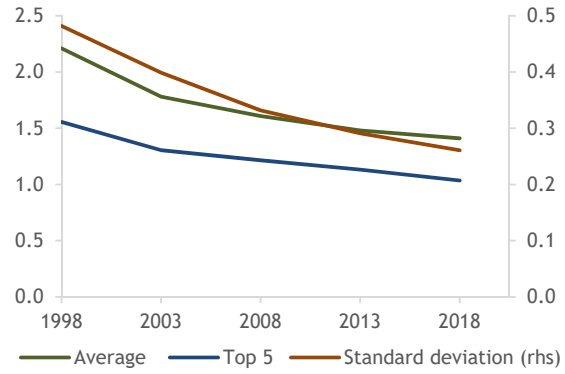
Source: Bureau of Economic Analysis, GC calculations

Fig 44: GFCF in the G7 combined
$tn in 2011 $ PPP



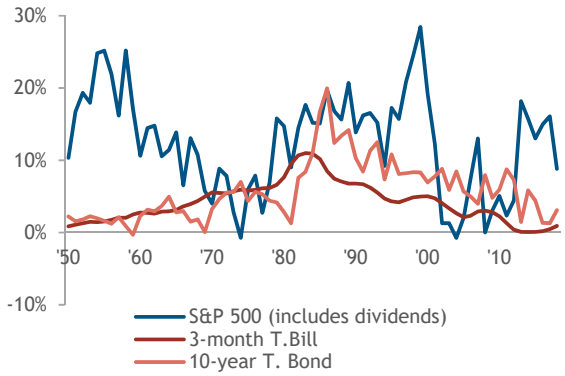
Source: IMF, GC calculations

Fig 45: Index of product market regulation
Lower score implies more liberal regulation



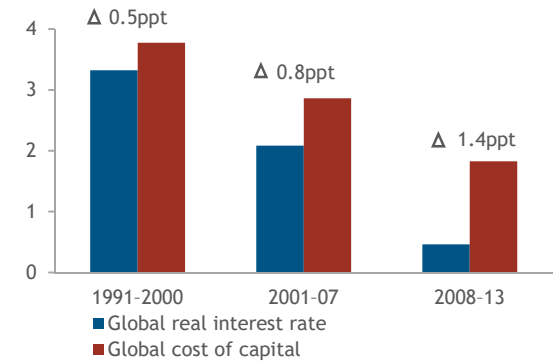
Source: OECD

Fig 46: Annual returns on investment in the US
5-year moving average



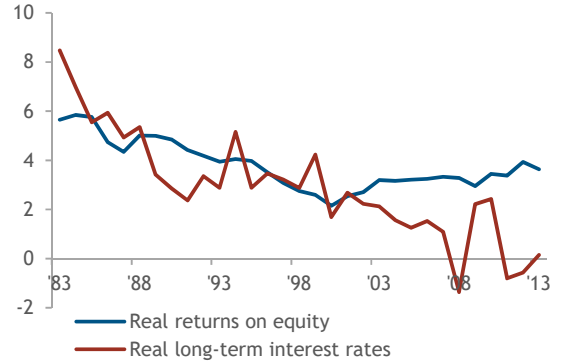
Source: Damodaran Online, GC calculations

Fig 47: Global cost of capital and real rates
%



Source: IMF, GC calculations

Fig 48: Global real returns
% a year



Source: IMF

more unequally distributed among populations than labour income, we should not expect household savings to adjust to offset an increase in corporate savings. As a result, upward pressure on corporate savings will tend to increase a country's current account surplus or reduce its deficit.

Researchers have identified other characteristics of firms that save more than they invest. Studies show that they tend to be larger and more profitable and invest heavily in R&D. They also tend to have low effective tax rates, as they are more likely to exploit complex international tax strategies (Dao and Maggi 2018).

Box 6: are executives myopic and is this damaging investment?

A 2016 survey of 1,000 executives by Barton et al. (2015) finds that 87% feel the most pressure to demonstrate strong financial performance within two years, up from 79% in 2013.

Companies based in developing markets are more likely to report increasing short-term pressure (82%) than their European or North American peers (64% and 65%). Moreover, the proportion reporting increasing pressure in developing countries has jumped from 60% in 2013.

60% of respondents say their teams should have a strategic planning horizon of three years or more, but only 52% have that horizon already.

61% of respondents who say they have a long-term culture would not change behaviour if a quarterly earnings target might be missed, compared to just 33% of other respondents. 33% of firms with a long-term culture would delay a new project, compared with 55% of other respondents.

Only half of respondents would take an unambiguously long-term view when making a major strategic decision. Nearly 40% would take a relatively or unambiguously short-term approach, even though it would undermine long-term value.

However, only 14% say that more-vocal activist investors are the main reason for increasing short term pressure (up from 7% in 2013) compared to 51% who put it down to greater competition, 47% who blame uncertainty, 40% who blame higher earnings expectations from the executive team and 37% who blame earnings expectations from the board.

Incentive schemes create frictions that can distort investment decisions and the need to hit forecasts may also encourage myopic behaviour

The Kay Review of UK Equity Markets and Long-Term Decision Making in 2012 (Kay 2012) concluded that short-termism is a problem and that it leads businesses to under-invest, whether in physical assets, product development, employee skills or reputation. Executives instead indulge in "hyperactive behaviour", with company strategies focused on restructuring, financial reengineering and M&A. Kay identifies the principal cause as a decline in trust and the misalignment of incentives throughout the equity value chain.

Analysts compete to predict the content of earnings announcements and company managers often join in this process by providing earnings guidance. Managing earnings expectations has in this way become a principal concern of CFOs and investor relations personnel. But this exercise often has little, if any, connection to the underlying competitive capabilities of the business.

Survey evidence in Barton et al. (2015) suggests that: many executives are focused on demonstrating financial results within a short period; executives at companies lacking a "long-term culture" are focused on meeting quarterly earnings targets; and many executives take a short-term approach when making major strategic decisions, even though it may undermine long-term value. Moreover, there is evidence that public companies respond less to investment opportunities than private ones, possibly as they are focused on short-run share price fluctuations (Asker et al. 2015).

Executive incentive programmes may also create frictions that distort investment decisions. According to Edmans, Fang and Huang (2017) there is evidence that CEOs may cut investment and focus on short-term earnings when their equity is about to vest. A separate study by Edmans, Fang and Lewellen (2017) finds that vesting equity can lead to lower R&D, less capital expenditure, positive earnings guidance, an increase in analyst forecasts, and a higher probability of companies just meeting those forecasts.

Similarly, EPS or share price targets in incentive plans may mean investment is cut to meet such targets. Firms that just meet targets have lower R&D and higher abnormal accruals than those that narrowly miss targets, implying that investment decisions may be distorted (Bennett et al. 2017). The probability of buybacks is higher for firms that would have just missed the EPS forecast otherwise, compared with those that just beat the forecast, and EPS-motivated buybacks are linked to lower employment and investment (Almeida et al. 2016).

There is also survey evidence that executives will cut investment to meet analyst forecasts. Graham et al. (2005) find that many would reject positive-NPV investment projects if they lower earnings below quarterly consensus forecasts. Three-quarters say they would give up economic value in order to smooth earnings, motivated by a desire to satisfy financial investors.

The Kay Review advises that companies should not seek to manage short-term earnings expectations and should avoid being distracted by devoting too much attention to managing earnings announcements. Kay also calls for executives to be rewarded by linking their renumeration to sustainable long-term business performance. Specifically, Kay recommends that long-term performance incentives should only be provided in the form of equity stakes that must be held until after the executive has left the business.

The regulatory burden or regulatory uncertainty could act as a drag on investment

Governments regulate for many reasons. In the case of natural monopolies and regulated utilities it is to promote economic efficiency. In the case of labour markets, it is in part to balance the interests of employees and employers. In the case of the environment, it is to offset the damaging social consequences of narrowly self-interested commercial decisions.

Inevitably, regulatory decisions require trade-offs, are based on incomplete information, and involve the government or public authorities using only a limited set of policy tools. Regulators are also prone to capture (by regulated entities) or may be swayed by short-term political pressures. For all these reasons, regulatory decisions are unlikely to be perfect.

Regulatory interventions may act as a drag on investment, although in some cases this may be the purpose of the regulation and be desirable, for example to constrain investment in high-emissions sectors, such as coal-power generators. In other cases, it may be an unintended consequence. For example, planning processes for large-scale infrastructure projects in the UK have often proven to be cumbersome and prone to delay, meaning that investments can take years longer than initially planned, or not happen at all.

Recent analysis suggests that there is a downward trend in product market regulations which inhibit competition in mature economies. The OECD assesses whether policies promote or inhibit competition in member countries every five years, with the most recent report produced in 2018. This shows that product markets have become progressively more liberalised since 1998 and that while there is still a significant dispersion in the regimes of member countries, this has also fallen progressively over the past 20 years (Fig 45).

Another concern is uncertainty about the future regulatory burden, rather than the level or trend in the regulatory burden. When appraising investment opportunities, this impacts not through additional costs, but in the form of a higher risk premium. The cost of capital has fallen more slowly than risk-free interest rates in recent years, implying that the risk premium has increased. However, the regulatory risk premium is just one component of this and is itself unobservable.

There are several factors that might lead to a higher regulatory risk premium. One might be an increased sensitivity to risk by banks and other regulated credit providers, following the reregulation of financial sectors in the aftermath of the financial crisis. The regulatory risk premium may also have increased because of greater political uncertainty, particularly in many mature economies, which means the nature and extent of regulatory interventions might be greater than before. Some of this is geopolitical in nature with, for example, some companies potentially exposed to a further deterioration in US-China relations. A third possible reason is that an issue like climate change acts as a major macro regulatory risk that businesses find hard to quantify, but which must also be reflected in risk premia.

A recent report by OECD (2017), following discussions between private and public sector professionals involved in infrastructure investment, notes that political and regulatory risks have increased in mature economies and that the discount rate applied in order to value investments has risen accordingly. It is also noted that disruptive innovation and technological change is adding to the regulatory uncertainty and risk, as public authorities react to unanticipated new developments. The OECD policy framework for investment recommends greater consultation when policy reforms are undertaken, including in the drafting phase, and transparency about how disputes are handled, including by using bilateral investment treaties or other means of dispute resolution (OECD 2015).

There are other possible explanations of low investment rates in productive assets

The growing importance of intangible investment, illustrated by the increasing share of investment in intellectual property in Fig 42, has been suggested by Gutiérrez and Philippon (2017) as one possible explanation of the weakness of fixed investment relative to measures of profitability and valuation. Firms may face collateral constraints that make it harder to borrow to finance investment in intangibles and as a result they need to accumulate more internal saving in the form of cash to reduce the cost of finance before investments of this sort can be undertaken (Chen et al. 2017).

Tax distortions may also influence investment decisions. Until recently, US companies found that repatriating cash from foreign subsidiaries led to a higher tax liability. Dao and Maggi (2018) find firm-level evidence that firms which have shown the strongest increases in both cash holding and net savings are also those with lower effective tax rates, implying that tax management could be linked to higher corporate savings and this might be at the expense of investment.

There is evidence that greater corporate savings have been partly driven by the need to hold more cash following the financial crisis, when credit markets froze (McKinsey Global Institute 2017). But increased

cash holdings by firms since then imply that access to finance is less likely to be a constraint on investment now.

Low investment does not necessarily mean underinvestment

The factors discussed above which may lead to a cut in investment need not be sub-optimal, as it is possible that other factors may create a tendency by CEOs to over-invest in the first place. Moreover, even if, for example, incentive schemes create some bias against investment in some circumstances, the cost of this may nevertheless be outweighed by their overall beneficial impact on the choices of executives.

Conclusion – issues for policymakers and other stakeholders to consider

A. An excessive focus on providing a regular flow of dividends to financial investors may be holding executives back from undertaking productive, value-enhancing investment opportunities that benefit shareholders with a long horizon.
B. While the increase in buybacks has attracted much scrutiny, there is little evidence to suggest this is constraining investment, and it may even be a welcome development if it provides a more flexible and efficient means to distribute excess funds to shareholders than dividends.
C. There is concern that markets are becoming less competitive and this is damaging for consumers and is contributing to inequality. It is possible that less competition, more industry concentration, and higher mark-ups are contributing to lower investment in productive assets.
D. Too much management time and effort are taken up by managing quarterly earnings announcements. Efforts to hit analyst forecasts for quarterly earnings may be constraining investment.
E. There needs to be more scrutiny of executive incentive schemes to see if these are constraining investment, particularly when equity is about to vest. Some executives may be more focused on meeting EPS targets and forgoing investment opportunities.
F. In line with the Kay Review, long-term performance incentives for company managers should be provided in the form of equity stakes that must be held until after the executive has left the business.
G. Many forms of regulation are justifiable on public policy grounds, but regulation may also have unintended consequences, including for investment in productive assets. It is important that policymakers systematically assess the potential impact of new regulations on investment.
H. While there is evidence of a downward trend in some regulation, regulatory uncertainty appears to have increased. Political uncertainty, notably regarding trade relations, and regulatory responses to new technologies, are two sources of uncertainty which may be holding back current investment.
I. Firms may be under pressure to accumulate more cash to finance investment in intangibles. As intangibles, such as intellectual property, are becoming ever more important, new ways may need to be found to finance this investment, without relying on traditional forms of collateral.
J. As inequality increases, there is inevitably more pressure to tax capital and income flows from capital. It is equally inevitable that this will be distortionary. It is essential that this does not restrain investment in productive assets. This should be a priority for tax authorities.

3. THE FINANCIAL INVESTOR PERSPECTIVE

This section looks at the issue of investment in productive assets from the perspective of financial investors. We consider how recent trends in financial investment are changing the relationship between financial investors and company managers. In some cases, these trends are being driven by low global interest rates. In this section, we produce a workable definition of what we call engaged capital, which incorporates the characteristics that are most supportive of investment in productive assets.

For the most part we refer to financial investors as a group. However, where necessary we draw a distinction between asset owners, holders and managers. This distinction is sometimes important, as conflicts between them can distort incentives.

Financial investors appear overly focused on short-term returns

There is evidence of short-termism among financial investors in both US and UK public equity markets. Haldane and Davies (2011) find that cash flows in equity price models five years ahead are discounted at rates more appropriate for eight or more years. Short-termism is a feature in each of the sectors analysed and the effect increases over time to be notably stronger in the second half of the 20-year sample considered, which runs until 2004.

Excessive discounting by financial investors is likely to discourage investment in productive assets by company managers and the effects will be most apparent in long-duration projects with high build or sunk costs, which might typically include infrastructure and high-tech investments. Moreover, these projects often yield the highest long-term private and social returns and hence offer the biggest boost to future growth. For these reasons, the authors conclude that short-termism in capital markets is a public policy issue.

Regulation might be contributing to short-termism. Giovannini et al. (2015) consider the example of Solvency II, the new regulatory framework for European insurers. The framework requires insurers to use market values and a one-year value-at-risk estimate, which may overestimate the risk facing an insurance business holding assets to match longer-term liabilities. It may also force the insurance company to hold excessive capital and therefore reduce its ability to finance long-term productive investments.

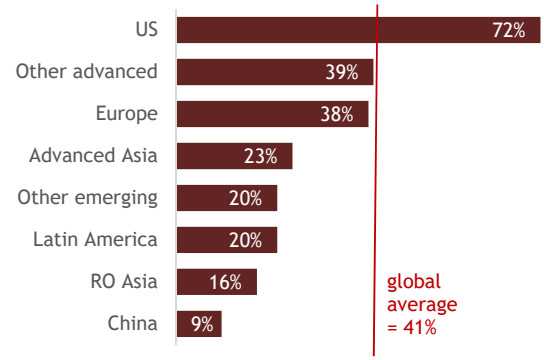
The strategies of financial investors matter

Institutional investors are estimated to own 41% ($31tn) of global market capitalisation and as such are an important category of financial investor (Fig 49). Building on Bushee (1998), we find it helpful to distinguish between three types of institutional investors:

- Traders. These are characterised by high portfolio turnover. As Kay (2012) notes, the primary focus of traders is technical and on the market for shares in a company – the flow of buy and sell orders, share price trading levels and momentum, and correlations between share prices of different companies.
- Indexers. These are characterised by high diversification and low portfolio turnover. They may either explicitly seek to track a benchmark index, or this may nevertheless be the result of incentives operating on an asset manager (quasi-indexers) which cause them to not deviate significantly from index weightings. They are mostly passive investors, with little inclination to monitor company performance or strategy.

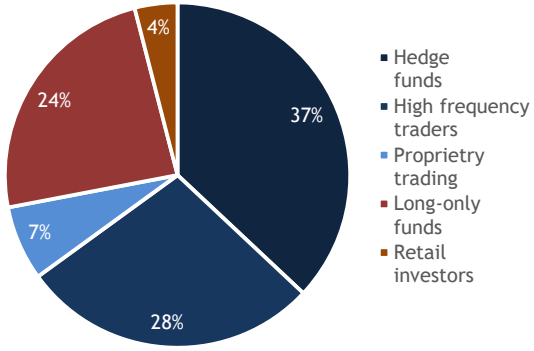
Financial investors

Fig 49: Institutional investor ownership
% of total holdings



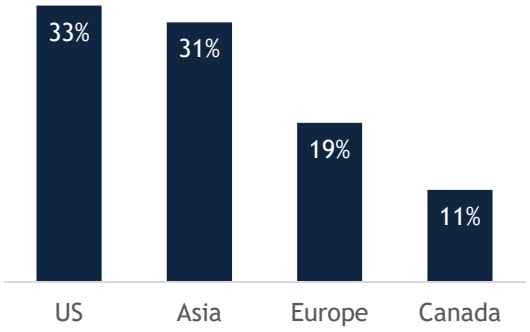
Source: Cruz et al. (2019) from various sources

Fig 50: Average UK daily share turnover
% share by beneficial ownership type



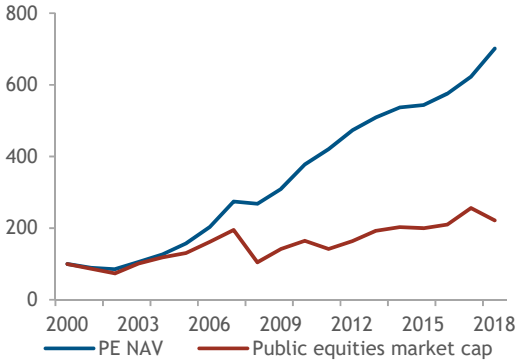
Source: Kay (2012) from TABB Group

Fig 51: Assets under management in passive funds
% of total in 2018



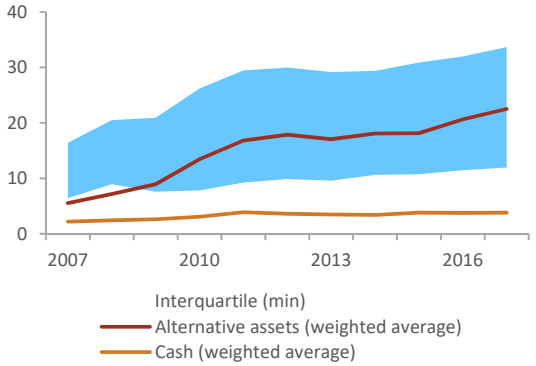
Source: Bloomberg

Fig 52: Growth in private equity net asset values
Indexed, 2000 = 100



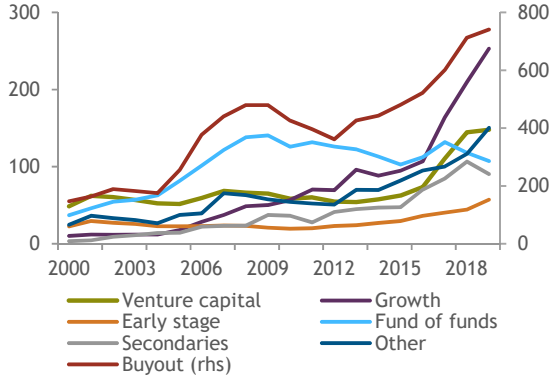
Source: Preqin

Fig 53: Pension fund alternative asset allocations
% of total assets under management



Source: McKinsey, Preqin

Fig 54: Dry powder by asset type
$bn



Source: Preqin

- Active investors. These are buy-and-hold investors who tend to have more concentrated portfolios. They are stock-pickers who base their selection on analysis of the fundamentals affecting a company and the sector it is operating in. As discussed below, providers of engaged capital are necessarily active investors, but not all active investors provide engaged capital.

The Kay Review in 2012 observed that traders – comprising high-frequency traders, hedge funds, and proprietary trading by investment banks - together accounted for 72% of the trading volume in UK equity markets, but only a small proportion of actual shareholdings (Fig 50). Similarly, trading volumes in the US are increasingly dominated by quantitative hedge funds and high-frequency traders (Figs 65 and 66). The Kay Review concludes that the distinction between traders and other types of investors is critical to understanding the influences that financial investors have on the decisions by company managers, including whether and when the latter invest in productive assets.

There has been a shift from active to passive investment in recent years. In 2009, $333bn flowed into active investment funds in the US, according to Bloomberg, compared to $60bn that flowed into passive funds. By 2018, that picture had reversed, with $506bn flowing out of active funds, and $156bn flowing into passive funds. It is now estimated that passive funds account for 33% of assets under management in the US, and that passive funds could soon overtake active funds. The picture is similar in Asia, where 31% of assets under management are passive, although it is not quite as stark in Europe, where 19% of assets under management are passive (Fig 51).

The strategies adopted by asset managers will be influenced by the time horizons over which they are judged by asset holders or owners. If this is short relative to the "value discovery" horizon – the period over which asset prices reflect their fundamental value – then asset managers will give more attention to the views of other market participants, than to the fundamental value of the company itself.

Kay (2012) argues that in these circumstances, even asset managers who believe they have a better understanding of the long-term value of a company than the market will be discouraged from acting on these beliefs, as they must endure a period of underperformance relative to their peers until the mis-pricing is recognised and incorporated into the share price. This may even be true of hedge fund managers focused on delivering absolute returns to investors, as they may nevertheless be judged on their performance relative to fund managers pursuing similar strategies.

The shift from active to passive appears to be driven by cost relative to performance. Charges on passive funds are significantly lower than for active funds as they do less research. It is questionable whether active funds can, on average, justify additional charges by pointing to superior performance, although analysis of that is sensitive to the time period chosen and is therefore contestable. In an environment in which interest rates and yields are generally lower, it is likely that sensitivity to charging by savers has increased, further incentivising the shift into passive funds.

The distinction between the different types of institutional investors is not always clear cut. For example, while some hedge funds fit the definition of traders, others do not. Activist hedge funds, which seek seats on boards in order to drive changes in company behaviour, have been shown to have a positive impact on firm value. One set of studies finds that an announcement that an activist hedge fund is taking a stake in a company increases the firm value by 7%, with no long-term reversal (Edmans 2017, Brav et al. 2008, Brav et al. 2013). Moreover, these studies find that increased labour productivity is a core driver of higher firm value after an activist fund takes a stake in a company.

Bushee (1998) concludes that company managers are less likely to respond to a decline in earnings by cutting R&D expenditure when a large proportion of their equity is owned by institutional investors. However, the same study also finds that when a large proportion of institutional investors are traders, with only transient shareholdings, there is a higher probability that company managers will cut R&D to boost earnings.

Gutiérrez and Philippon (2018) find that investment strategies that either explicitly or implicitly track indices may lead to lower investment, particularly in non-competitive industries. According to Barton and Wiseman (2014) tracking benchmark indices may also lead to herd behaviour, excess volatility and bubbles, with company managers making suboptimal decisions and missing opportunities to create long-term value. Moreover, an inherent problem of index tracking is that funds are overweight when stocks are over-valued and under-weight when they are undervalued.

There may be too much focus on market liquidity, which is supporting price discovery at the expense of value discovery

The drive towards passive investing has in part been linked to the efficient market hypothesis, which states that all public information will be reflected in asset prices, implying there is little to be gained by paying additional management fees to funds that are attempting to beat the market. The same argument exposes an inherent contradiction in the efficient market hypothesis, which is that it is not clear where the incentive to obtain information comes from if all relevant information is already fully incorporated in market prices.

As the Kay Review notes, there is an important distinction between price discovery and value discovery. The former is about the transmission of information in the market and requires an understanding of order flow and the expectations and strategies of other traders; the latter yields insight into the fundamental value of a company's shares from its potential earnings and future cash flow. Financial markets may be good at price discovery. But the more efficient is the market in price discovery, the less reward there is from value discovery, which is socially more important.

Market liquidity is generally regarded as a positive and increasing market liquidity is frequently cited as an objective of regulatory policy. There is also a widely held view that a higher volume of trading activity is a good thing, as it increases market liquidity. However, according to the Key Review, this can help price discovery without necessarily supporting value discovery. As such, it may also be promoting passive investment over more active investment strategies.

The search for yield has helped drive a shift from public to private asset markets by active investors

Low interest rates have had mixed consequences for financial investors. On the one hand, they have driven a decade-long bull market which has pushed up asset valuations. On the other, there are concerns about asset price bubbles and the potential for a correction in asset prices. Low interest rates also increase the value of long-term liabilities for pension and insurance funds, decreasing funding ratios.

With the total value of negative-yielding global debt exceeding $15tn in 2019, institutional investors have sought higher-yielding assets which better match long-term liabilities. IMF (2019b) regards low interest rates as the main driver of investor rotation into higher-risk, higher-return assets, mainly in private markets.

By most industry definitions, the institutional market for private assets includes fund managers investing in private equity – such as buyouts, venture capital, growth, secondaries and niche strategies like fund-of-funds and long-duration funds - private debt, real estate, natural resources and infrastructure.

The switch into private equity is illustrated in Fig 52. This shows that private equity net asset values have increased sevenfold since 2000. Over the same period public equity market capitalisation has increased by just 120% and is only 14% higher than the pre-crisis peak of 2007. Total private assets under management at year-end 2018 are estimated at almost $6tn, with private equity accounting for nearly 60% of the total. Private equity drew $778bn in new capital in 2018 and institutional investors are continuing allocations into the asset class (Fig 53).

For private equity general partners (GPs), low interest rates reduce the absolute value of Libor-plus or T-Bill plus hurdle rates and the cost of leverage, which tends to make profitability (and thus carry payouts) larger and easier to achieve. This may be encouraging the increase in PE fund launches and fund raising seen over the past two decades, with more than 1,900 launches on average per year between 2013 and 2018 (Fig 56).

But low interest rates and cheap leverage are also driving increasing deal multiples. The average buyout deal multiple rose from 10.4 to 11.1 times EBITDA between 2017 and 2018. With the private asset management industry sitting on an estimated dry powder in excess of $2.4tn, $1.6tn of which is to be deployed by private equity funds, deal multiples are likely to continue to rise as GPs chase a smaller pool of investable primary deals (McKinsey Global Institute 2019).

In recent years we have also seen more long-duration private equity vehicles. Even so, these currently make up less than 5% of total PE assets under management. Some of the largest GPs have introduced long-term capital vehicles to meet demand from institutional investors who are seeking lower transaction costs, advantageous tax treatment, and flexibility to sell when the time is right (Bain & Company 2019).

The impact of private equity on productive capital expenditure is mixed

Private equity invariably involves closer engagement between asset managers (the GPs) and company managers on strategy. It also frees company managers from strict public reporting requirements and reduces the likelihood that they will be distracted by quarterly earnings targets. This makes for better engagement and may be supportive of more productive investment by companies.

Even so, private equity has its critics. Mitt Romney's campaign to be the 2012 Republican presidential candidate in the US was nearly derailed by criticism that he and his former Bain Capital colleagues were asset strippers. But the evidence of the impacts of private equity on employment and investment in productive assets tells a more nuanced story.

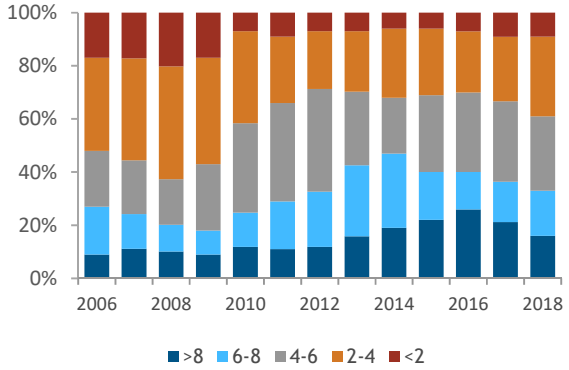
Job losses and restructurings often play a significant role in post-buyout turnaround plans, according to Davis et al. (2019). Job losses are highest following public-to-private deals. Employment numbers in US public-to-private buyout targets have been shown to decline by an average of 13% in the two years following a transaction relative to a control group of similar firms. However, private-to-private and secondary transactions show 12% and 8% increases in employment respectively.

Credit conditions and the stage of the economic cycle matter when determining the impact of buyouts. At the top of the cycle, when credit is cheap and plentiful, PE groups may rely more on financial engineering to drive exit values. But during a downturn, when credit conditions are tighter, buyouts

Financial investors

Fig 55: Private equity holding periods

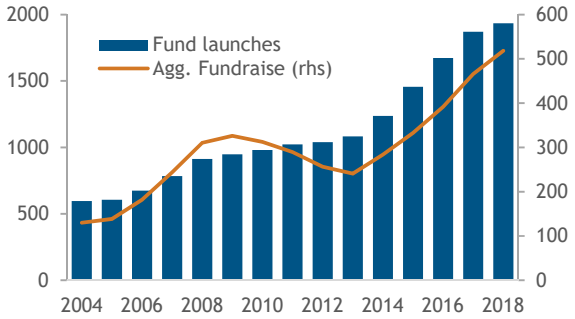
% of total portfolio company exits by years held at exit



Source: McKinsey, Preqin

Fig 56: Private equity fund launches & fundraises

Number $m

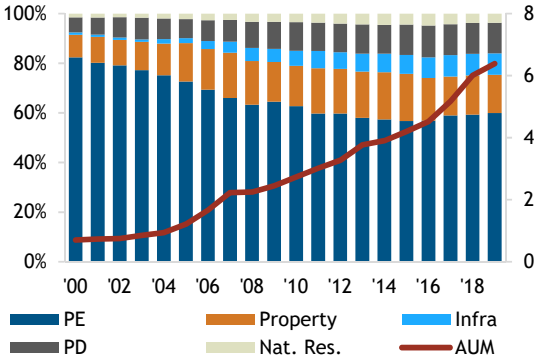


*Both figures are 5-year rolling averages

Source: Preqin, GC calculations

Fig 57: Private assets by asset class

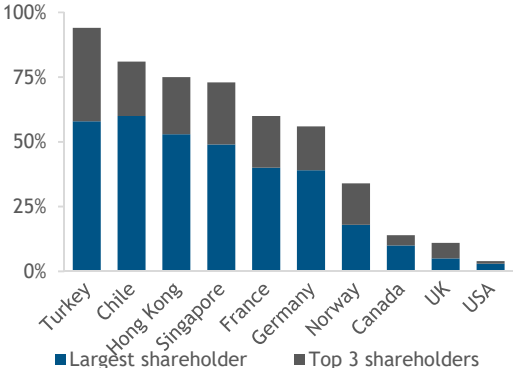
% of total assets under management $tn



Source: IMF

Fig 58: Ownership concentration

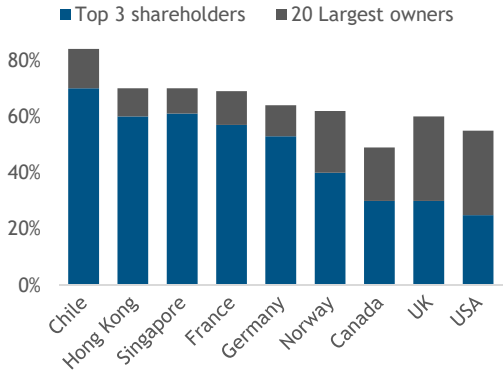
% of listed companies where largest s/h hold >50% of equity



Source: OECD

Fig 59: Ownership concentration

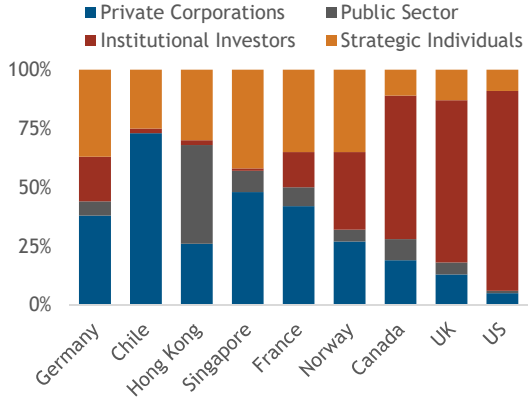
Average % holding of largest shareholders combined in listed companies



Source: OECD

Fig 60: Largest investors at the company level

% of listed companies, by the category of their single largest investor



Source: OECD

need to lean more heavily on operating improvements to increase productivity and create value, which means more job losses.

While the impact of private equity investment on job creation is mixed, the picture on productivity is clearer. Private equity-backed firms, on average, are more productive two years after buyouts than other comparable firms. Davis et al. (2019) find that productivity increases on average by 9% in the two years after a buyout. Davis et al. (2014) find that three-quarters of the post-buyout increase in productivity is from private equity-backed managers' willingness to close low-productivity plants and to open new high-productivity plants. Many other studies also find that PE investments, while disruptive, often improve productivity.

Other studies find that buyouts may trigger industry-wide increases in capital expenditures. Aldatmaz and Brown (2018) assess the behaviour of public firms after PE investments in their industry are confirmed. They find that publicly listed companies competing with PE-backed firms increase capital expenditures to avoid becoming uncompetitive. Assuming this capital expenditure is put toward productive use, this implies PE deal flow can spur competition and raise sector-wide productive investment.

More engaged capital is needed, requiring patience, scale and tolerance of risk

The trends in financial investment described above – with more transactional capital being deployed by traders, and more funds being deployed by indexers who take a passive approach to investment – are now well established.

We conclude by identifying the financial investment strategies that are likely to be most supportive of investment in productive assets by company managers. This requires that financial investors and company managers engage with each other and build an ongoing relationship. Neither traders deploying transactional capital nor indexers who take a passive approach to investment have an interest in doing this. The time horizon of traders is too short and they do not focus on company fundamentals. Many passive investors delegate their governance responsibilities to third parties who vote on their behalf and have a dialogue with company management on issues such as ESG, but this invariably lacks depth on long-term strategy.

A necessary condition, therefore, for deep and sustained engagement, is that the asset manager is pursuing an active investment strategy. But this may not be sufficient. The financial investor also needs to understand and support (where merited) the strategy of the company. This requires analysis, dialogue, and a willingness to see through short-term fluctuations in share prices.

Engaged capital is a form of active investment that involves a partnership between financial investors and company managers, with a shared long-term horizon and a focus on maximising sustainable value. There are three necessary conditions for this: patience, scale, and tolerance of risk.

Financial investors must be patient to provide company managers with the correct incentives to invest in productive assets with a long time horizon. This should not be a blind commitment to a long holding period, but rather a willingness to base buy or sell decisions on a long-term view of company strategy and performance.

A narrow focus on investor holding periods may provide a flawed test of whether investors are sufficiently engaged with company management to provide a supportive environment for productive investment. It is possible, for example, that an investor might short a stock if they believe a company

has cut productive investments that damage its long-term viability. That should discourage executives from taking such short-sighted decisions in the first place. The best form of loyalty, according to Edmans (2017), is therefore conditional - staying with a firm, even when short-term earnings are low, providing the firm is pursuing long-run value.

Box 7: should there be a two-tier investor structure?

The Financial Times has called for structural and regulatory solutions to encourage companies to adopt a wide purpose and take a long-term perspective, including a more relaxed attitude to two-tier shareholder structures, such as time-limited super-voting shares for anchor shareholders. The FT also argues that regulators should explore ways to discourage an excessive focus on quarterly earnings.

Another form of two-tier structure is to allow additional voting rights for shares that have been held for longer periods. In 2014, the French introduced the Florange law, which automatically grants double voting rights to shares registered for more than two years, unless two-thirds of shareholders vote to disallow this. Many large French companies already had double voting rights even before that law was passed. Some Italian companies also have double voting rights for long-term shareholders.

Critics who oppose variable voting rights say they preserve the interests of dominant shareholders and can lead to cosy insider relationships and weaker governance of companies. Moreover, initiatives such as the Florange law may encourage holding for the long-term, without necessarily encouraging stewardship and engagement with company management. Edmans (2017) notes they may even disincentivise shareholders from building up large stakes, which is important if they are to have incentives for stewardship and engagement.

The Kay Review concludes that equity markets currently encourage “exit”, through the sale of shares, over “voice”, and an exchange of views with the company, replacing the concerned investor with the anonymous trader. The review also concludes that there are insufficient incentives and opportunities for engagement (by either party) or for analysis by fund managers. Moreover, a regulatory focus on liquidity reinforces this, as it makes exit easier. Incentive schemes may also encourage short-termism and an approach that favours exit over voice.

A second necessary condition for engaged capital is for financial investors to hold meaningful stakes in individual companies. This provides them with skin in the game to incentivise engagement and the acquisition of intangible, long-term information about company decision-making. This also allows financial investors to influence strategic decisions and to ensure company managers are not distracted by other influences, such as hitting quarterly earnings forecasts.

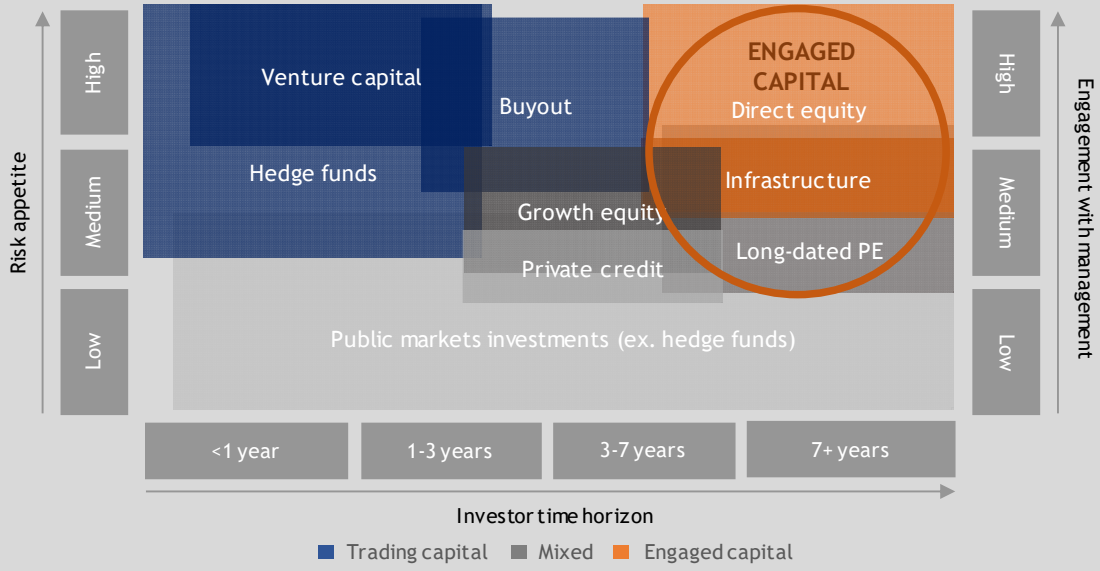
There is empirical evidence to support the view that the size of shareholding is important for the quality of the investor-executive relationship. BEIS (2019) finds a greater concentration in shareholdings encourages shareholders to scrutinise a company, its management, and its investment decisions more closely, leading to stronger governance and better decisions. Edmans, Fang and Lewellen (2017) find that the relationship between vesting equity and falling investment, discussed in the previous section, is weaker when there are more large shareholders, as they may be better able to see through a rise in earnings which is the result of cuts in investment.

The third necessary condition is tolerance of risk. Financial investors are incentivised to engage more when the risks are higher. Moreover, the higher expected yield in return for the higher risk makes this more attractive to investors in a low interest rate environment.

Box 8 illustrates which financial investor strategies are consistent with providing engaged capital. Our estimate of the proportion of assets under management that meets our definition of engaged capital, shown in Figs 61 and 62, ranges from 2.5% (narrow definition) to 5.0% (with mixed assets included) of total assets under management. These estimates do not take account of public markets investments that meet our definition of engaged capital, but this amount is likely to be small.

Box 8: investor strategies and engaged capital

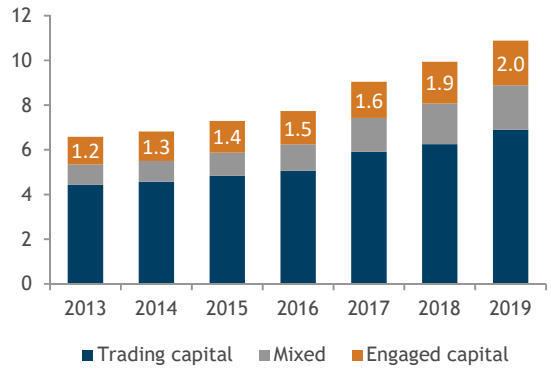
Financial investor strategies that fall within our definition of engaged capital include direct equity stakes and infrastructure funds. Some long-duration, growth equity and private credit funds also fit our definition, but not all. These fund types are classified as mixed above. A small subset of the long-only fund management industry would meet this definition, depending on their level of engagement with company managers.



The amount of engaged capital has grown relative to total assets under management in recent years. But Figs 64 and 65 also show a surge in transactional capital being deployed by quant funds. Fig 66 shows this has been associated with a surge in the share of trading volumes accounted for by high-frequency trading funds. This suggests that even though engaged capital is growing, it comes against a backdrop of an increasing dominance of financial transactions by technical traders.

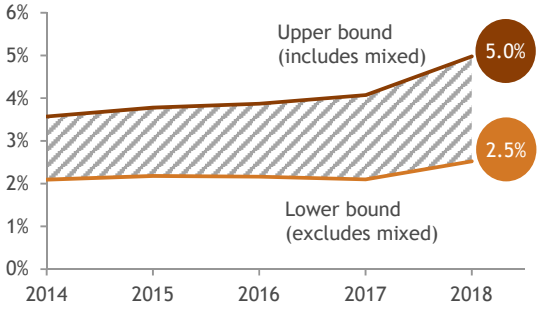
Engaged and transactional capital

Fig 61: Alternative assets by type
Assets under management, $tn



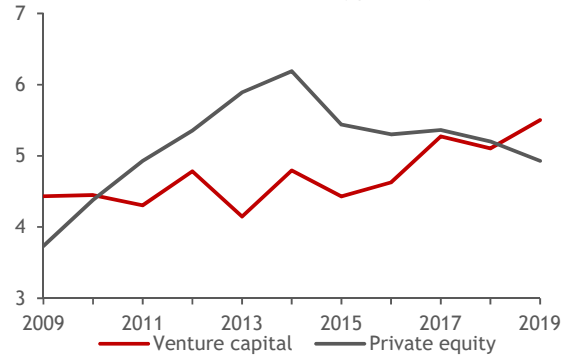
Source: Preqin, BarclayHedge, GC calculations

Fig 62: Engaged capital in context
Engaged capital held in private assets, % of global assets under management



Source: Preqin, BCG, BarclayHedge, GC calculations

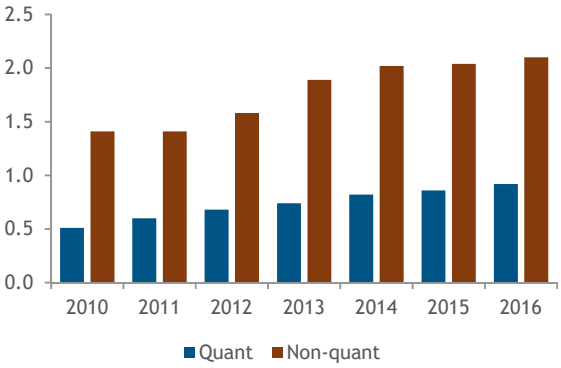
Fig 63: Median holding periods
Median VC time to exit and PE holding period, years



Note: 2019 VC data until 30/09

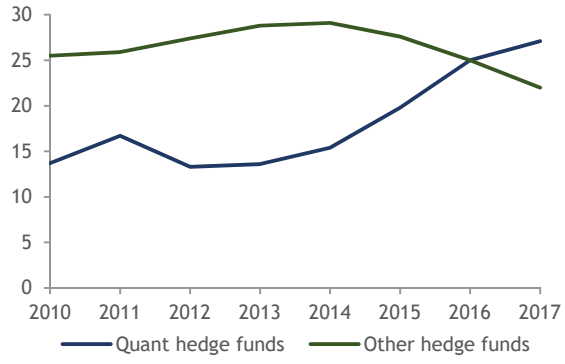
Source: PitchBook

Fig 64: Hedge fund assets by fund type
Assets under management, $tn



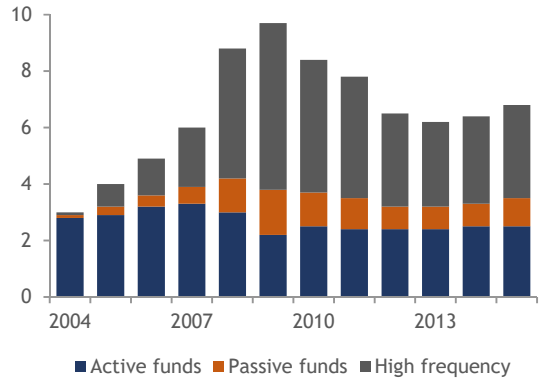
Source: Hedge Fund Research

Fig 65: Growth in US hedge fund quant trading
Share of US stock trading by type of fund, %



Source: Tabb Group

Fig 66: US equities trading volumes by fund type
Average daily volume, billions of transactions



Source: Credit Suisse

Conclusion – issues for policymakers and other stakeholders to consider

A. We conclude that equity markets function more effectively if there are more trusting relationships based on voice and fewer trading relationships that rely on exit. This is in line with the Kay Review. The form of financial investment that is most supportive of company investment in productive assets is engaged capital (see Box 8).
B. Engaged capital is a form of investment that involves ongoing engagement between financial investors and company managers, with a shared long-term horizon. There are three conditions for this: patience, scale, and tolerance of risk.
C. Engaged capital strategies require sizeable commitments of time and resource to the governance of companies. Large multi-generational family offices are well-placed to meet these requirements.
D. Direct equity stakes provide the closest possible link between financial investors and company managers, as there are no intermediaries. However, they are the most resource-intensive form of engaged capital investment.
E. Policymakers, including regulators, should assess the impact that their policies have on the incentives for financial investors to build relationships and provide engaged capital. Practices that inhibit engaged capital need to be justified based on other public policy objectives or removed.
F. The need for patience, scale and tolerance of risk means engaged capital is not naturally a fit for individual retail investors, so policymakers should create frameworks to allow the long-term savings of retail investors to be collectively channelled into engaged capital.
G. Policymakers should reconsider the merits of promoting liquidity through increased trading volumes and market depth. This may encourage high-turnover trading strategies at the expense of more engaged capital, and price discovery at the expense of value discovery.
H. Consideration should be given to adopting two-tier shareholder structures to encourage engaged capital. There are pros and cons of the different ways in which this might be done that must be balanced.
I. A long holding period is more likely a consequence of good engagement between financial investors and company executives than an end in itself. Measures to promote longer holding periods can make engagement less likely if they discourage financial investors from taking larger stakes.
J. More concentrated shareholders are a necessary condition for engaged capital. They are more prevalent in many continental European countries, partly due to the importance of family-owned businesses. Nevertheless, consideration needs to be given to protecting minority shareholders.
K. Buybacks provide one means for executives to increase the concentration of shareholdings in their company. Providers of engaged capital might wish to support buybacks for this reason, providing this is not at the expense of depriving companies of the funds needed to finance productive investment.
L. More widespread use could be made of stewardship codes, as suggested by the Kay Review, and further attention given to how these might promote engaged capital. The proper scrutiny of company investment decisions and their long-term impact should be central to stewardship codes.
M. Stewardship codes should encourage passive fund managers to take a more active role in company governance, either directly or through third parties. This must extend beyond good citizenship to include engagement on company strategy.
N. Family offices should play a larger role in encouraging the asset management industry writ large to engage company management more often and with more impact on productive capital investments.
O. There has been a steady drive towards greater transparency and pro forma reporting by public companies. This may be promoting short-termism and leading to an excessive focus on quarterly earnings. The balance may need to shift towards less reporting by public companies.

P. In line with the Kay Review, more attention should be given to how asset managers are rewarded, with long-term incentives provided by an interest in the fund that is held until the asset manager is no longer responsible for the fund. This would help to align incentives.

Q. Engagement is costly but has some of the characteristics of a public good, with many of the benefits accruing to other shareholders, including those who are passive. This may lead to under-engagement by investors.

R. This can be mitigated if companies seek to bear many of the direct costs of engagement. Company executives should take the initiative. How financial investors respond to that engagement and the conclusions they draw from it has more of the qualities of a private good.

ANNEX: GROSS FIXED CAPITAL FORMATION

Bank of England (2016) defines investment as "spending that has the potential to expand the capacity of the economy, by adding to capital, knowledge and technology". This has two main components: gross fixed capital formation and investment in human capital.

The UK's Office of National Statistics defines gross fixed capital formation as net capital expenditure by both the public and private sectors. Business investment is one of the main components of GFCF, which also includes expenditure on dwellings and capital expenditure by local and central government.

Types of assets included in the definition of GFCF are:

Assets	Definition	Examples
Dwellings	Buildings used as residences, including any associated structures, such as garages.	Houses, mobile homes and caravans.
Transport equipment	Any equipment used to move people and objects.	Motor vehicles, ships, trains, aircraft, bicycles.
Research and development	Expenditure on creative work to increase the stock of knowledge, which developers can market or use.	Development of software programs or design for a new aircraft.
Mineral exploration	Expenditure on exploration for petroleum and natural gas and for non-petroleum deposits.	License and acquisition costs, appraisal, test drilling and boring.
Software and Databases	Computer programs and supporting systems for both systems and application software.	Packages such as Microsoft Office.
Entertainment	Original films, recordings, manuscripts, etc.	Radio and television programmes and books.
Other buildings	Buildings that are not dwellings, industrial buildings, commercial buildings etc.	Schools, hospitals, sport, community buildings.
Transfer costs	Costs from buying/selling an asset.	Transport, legal fees etc.
ICT	Mainly hardware and telecom equipment such as computers and mobile phones.	Computers, laptops, mobile phones.
Other machinery and equipment incl. weapons	All equipment and machinery for general or special use.	Large electronic equipment, engines, turbines, machinery for mining, domestic appliances.
Cultivated	Livestock for breeding (including fish and poultry).	Livestock not for slaughter, orchards, vineyards.

Global Counsel

REFERENCES

Aghion, P, van Reenen, J and Zingales, L (2013), 'Innovation and institutional ownership', American Economic Review, 103:277–304

Aldatmaz, S and Brown, G W, (2018), 'Private equity in the global economy: evidence on industry spillovers', UNC Kenan-Flagler Research Paper No. 2013-9, 29th Annual Conference on Financial Economics & Accounting 2018

Almeida, H, Fos, V, Kronlund, M (2016), 'The real effects of share repurchases', Journal of Financial Economics, No. 119 (1), pages 168-185

Ampudia, M, Georgarakos, D, Slacalek, J, Tristani, O, Vermeulen, P, and Violante, G L (2018), 'Monetary policy and household inequality', European Central Bank, Working Paper Series, 2170, July

Arslan, Y, Contreras, J, Patel, N and Shu, C (2018), 'Globalisation and deglobalisation in emerging market economies: facts and trends', Globalisation and Deglobalisation, BIS Papers, vol. 100, pp 1-25

Asker, J W, Farre-Mensa, J and Ljungqvist, A (2015), 'Company investment and stock market listing: a puzzle?', Review of Financial Studies 28, no. 2, February

Bain & Company (2019), 'Global private equity report 2019', Bain & Company

Bank of England (2016), 'Understanding and measuring finance for productive investment', Bank of England, Discussion Paper, April

Barton, D, Balley, J and Zoffer J (2015), 'Rising to the challenge of short-termism', FCLT Global

Barton, D and Wiseman, M (2014), 'Focusing capital on the long term', Harvard Business Review, February

Bennett, B, Bettis, J C, Gopalan, R, and Milbourn, T (2017), 'Compensation goals and firm performance', Journal of Financial Economics, 124(2), 307-330

Bernanke, B (2005), 'The global savings glut and the US current account deficit', Federal Reserve Board, Sandridge Lecture, March

Bernanke, B (2015), 'Why are interest rates so low, Part 3: The global savings glut', Ben Bernanke's Blog, Brookings, April

Borio, C (2012), 'The financial cycle and macroeconomics: What have we learnt?', BIS Working Papers, No 395, December

Brav, A, Graham, J R, Harvey, C R, and Michaely, R (2005), 'Payout policy in the 21st century', Journal of Financial Economics, 77(3), 483-527

Brav, A, Jiang, W, Partnoy, F, and Thomas, R (2008), 'Hedge fund activism, company governance, and firm performance', Journal of Finance, Vol. LXIII, No. 4, August

Brav, A, Jian, W and Kim, H (2013), 'The real effects of hedge fund activism: productivity, asset allocation, and industry concentration', Working Paper, May

Brunnermeier, M K, and Schnabel, I (2016), 'Bubbles and Central Banks: Historical Perspectives', Central Banks at a Crossroads: What Can We Learn from History?, Cambridge University Press

Bushee, B J (1998)., 'The influence of institutional investors on myopic R&D investment behavior', Accounting Review, 73(3), 305-333

Caballero, R, and Farhi, E (2014), 'On the role of safe asset shortages in secular stagnation, VOX, CEPR, August

Cecchetti, S, and Kharroubi, E (2012), 'Reassessing the impact of finance on growth', BIS Working Papers, no 381

Cecchetti, S, and Kharroubi, E (2015), 'Why does financial sector growth crowd out real economic growth?', BIS Working Papers, no 490

Chen, P, Karabarbounis, L and Neiman, B (2017, 'The global rise of company saving', Federal Reserve Bank of Minneapolis, Working Paper, 736, March

Council of Economic Advisers (2015), 'Long-term interest rates: a survey', Obama White House archives, July

Dao, M C, and Maggi, C (2018), 'The Rise in Company Saving and Cash Holding in Advanced Economies: Aggregate and Firm Level Trends', IMF Working Paper, WP/18/262

Davis, S J, Haltiwanger, J, Handley, K, Jarmin, R, Lerner, J and Miranda, J (2014), 'Private equity, jobs, and productivity', American Economic Review, 104(12): 3956-3990

Davis, S J, Haltiwanger, J, Handley, K, Lipsius, B, Lerner, J and Miranda, J (2019), 'The social impact of private equity over the economic cycle', Working Paper, January

Department for Business, Energy & Industrial Strategy (2019), 'Share repurchases, executive pay and investment', BEIS Research Paper Number 2019/011, July

Edmans, A (2017), 'The answer to short-termism isn't asking investors to be patient', Harvard Business Review, July

Edmans, A, Fang, V W, and Huang, A H (2017), 'The long-term consequences of short-term incentives', ECGI Working Paper Series in Finance, 527/2017, September

Edmans, A, Fang, V W, and Lewellen, K A (2017), 'Equity vesting and investment', Review of Financial Studies, 30(7), 2229-2271

Epstein, G A (2005), 'Financialization and the world economy', Edward Elgar Publishing

Giovannini, A, Mayer, C, Micossi, S, Di Noia, C, Onado, M, Pagano, M and Polo, A (2015), 'Restarting European Long-Term Investment Finance', A Green Paper Discussion Document

Gordon, R (2012), 'Is US economic growth over? Faltering innovation confronts the six headwinds", National Bureau of Economic Research, Working Papers 18315

Graham, J R, Harvey, C R and Rajgopal, S (2005), 'The economic implications of company financial reporting', Journal of Accounting and Economics, 40:3–73

Gross, B (2019), 'The fixx', Investment Outlook from Bill Gross, October

Gruber, J W, and Kamin, S B (2015), 'The company saving glut in the aftermath of the global financial crisis', International Finance Discussion Papers, 1150, October, Board of Governors of the Federal Reserve System

Grullon, G, and Michaely, R (2004) 'The information content of share repurchase programs', Journal of Finance, 59(2), 651-680

Gutiérrez, G, and Philippon, T (2017), 'Investment-less Growth: An Empirical Investigation', Brookings Papers on Economic Activity, September

Gutiérrez, G, and Philippon, T (2018), 'Ownership, Concentration and Investment', AEA Papers and Proceedings, 108: 432-37

Haldane, A and Davies, R (2011), 'The Short Long', speech given at the 29th Société Universitaire Européene de Recherches Financières Colloquium, New Paradigms in Money and Finance?, Brussels, Bank of England, May

IMF (2014), 'Perspectives in global real interest rates', World Economic Outlook, April, chapter 3

IMF (2019a), 'The rise of company market power and its macroeconomic effects', World Economic Outlook, April, chapter 2

IMF (2019b), 'Global financial stability overview: lower for longer', Global Financial Stability Report, October, chapter 1

Jensen, M (1993), 'The modern industrial revolution, exit, and the failure of internal control systems', The Journal of Finance, No. 48(3), pages 831-880

Kay, J (2012), 'The Kay review of UK equity markets and long-term decision making', UK government, July

Marx, M, Mojon, B and Velde, F R (2019, 'Why have interest rates fallen far below the return on capital?, BIS Working Paper, no. 794, July

McKinsey Global Institute (2010), 'Farewell to cheap capital? The implications of long-term shifts in global investment and saving', McKinsey & Company, December

McKinsey Global Institute (2017), 'The new dynamics of financial globalization', McKinsey & Company, August

McKinsey Global Institute (2019), 'Global private markets review 2019', McKinsey & Company, February

Miles, D (1993), 'Testing for Short Termism in the UK Stock Market', Economic Journal, No. 103 (421), pages 1379-1396

OECD (2015), 'Policy framework for investment', Organisation for Economic Cooperation and Development

OECD (2017), 'Policy dialogue to develop infrastructure as an asset class: summary', Organisation for Economic Cooperation and Development, October

Rachel, L and Smith, T D (2017), 'Are low real interest rates here to stay?', International Journal of Central Banking, September

Saleheen, J and Levina, I (2017), 'The financial system and productive investment: new survey evidence', Bank of England Quarterly Bulletin, Q1

Shleifer, A and Summers, L (1988), Breach of trust in hostile takeovers, A. Auerbach (ed.): Company takeovers: Causes and Consequences, University of Chicago Press, pages 33-56

Shleifer, A and Vishny, R W (2002), 'Stock market driven acquisitions', Journal of Financial Economics, 70, 295-311

Summers, L H (2014), 'Reflections on the "New Secular Stagnation Hypothesis"', in Baldwin, R and Teulings, C (eds.), Secular Stagnation: Facts, Causes and Cures. London, Centre for Economic Policy Research

Tori, D, and Onaran, Ö (2018), 'The effects of financialization on investment: evidence from firm-level data for the UK', Cambridge Journal of Economics, 42:5, 1393–1416

Villeroy de Galhau, F (2016), 'Savings glut, or investment deficit?', speech at The Future of Savings conference, November

Oppenheimer Generations

South Africa – 6 St. Andrews Road, Parktown, Johannesburg, Gauteng 2193

United Kingdom – 1 Charterhouse Street, London EC1N 6SA

Jersey – IFC5, The Esplanade, Saint Helier, Jersey, JE2 3BY

www.opp-gen.com

Lead author:
Jonathan Oppenheimer – Executive Chairman, Oppenheimer Generations