Bridgewater[®]

Daily Observations

August 27, 2018

©2018 Bridgewater Associates, LP

(203) 226-3030

Jason Rotenberg Matthew Karasz Lauren Forman

US Business Investment Is Likely to Wane in 2019, Adding to the Downside Risks to Growth

Over the past year, a variety of pressures have combined to produce a surge in US business investment, helping to support the economy even as the Fed shifted toward tightening. When we look at the main drivers of investment, we expect them to remain in place in the coming months before gradually fading. The drag from this slowdown in investment isn't likely to be that big on its own but, together with the accumulated weight of Fed tightening, is another reason to expect the economy to slow in 2019. Below, we go through the pressures on major drivers of business investment. In short, almost 75% of the recent pickup was driven by mining and tech, with fiscal policy providing an additional boost to investment across all sectors.

Mining: Mining is a small segment of the US economy, but it has surged enough over the last year to be a material support to capex and overall growth. Looking ahead, if prices flatten out as discounted, we would expect this support to gradually fade.

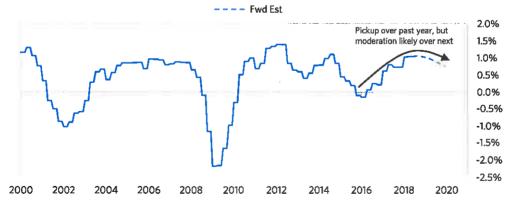
Tech: Tech investment makes up over 20% of capex and is much stronger than broader investment, growing at a 10% pace. Some cyclical slowing is likely. The secular strength is in part due to greater substitution away from most other forms of capex and in part due to an additional boost as tech companies invest to gain market share. We have less of a view on how strong the secular boost will be.

All other: Firms have also been boosting other types of investment in response to the broad-based pickup in growth we've seen, although somewhat more moderately than in prior cycles. As the tightening hits, this demand will likely slow and the capex will cool with a lag.

Fiscal policy: The recent fiscal stimulus, and tax changes in particular, is incentivizing all types of capex. At this point, we estimate that it's adding about 0.3% to growth, a support we expect to persist for a bit before rolling off over the course of 2019.

As shown in the chart below, when we net out these pressures, our base case is for capex to become somewhat less supportive, although the degree will depend on non-cyclical pressures like tech-related spending.

Business Fixed Investment Contribution to Real GDP Growth



© 2018 Bridgewater® Associates, LP. By receiving or reviewing this Bridgewater Daily Observations™, you agree that this material is confidential intellectual property of Bridgewater® Associates, LP and that you will not directly or indirectly copy, modify, recast, publish or redistribute this material and the information therein, in whole or in part, or otherwise make any commercial use of this material without Bridgewater's prior written consent. All rights reserved.

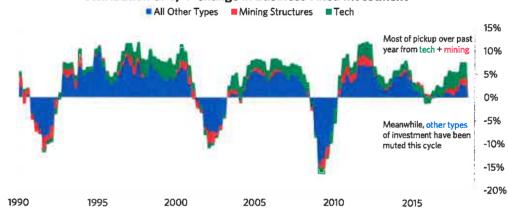
Below, we summarize what's been driving US business investment and what we expect to see going forward. We expect support from mining investment to fade as prices level off, are uncertain about the forward path for tech investment, and see little reason for other types of investment to pick up meaningfully.

Business Fixed Investment Contribution to Real GDP Growth (Y/Y)

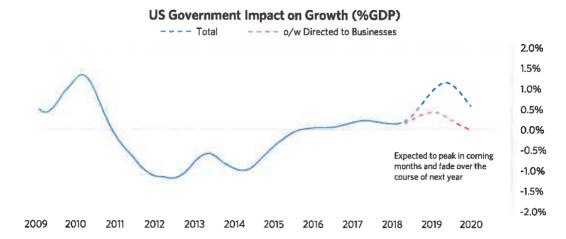
Sector	Weight	Y/Y Chg	Cntrb	Fwd-Looking View	
Total Economy		2.8%	2.8%	Likely to moderate over next year	
Business Fixed Investment	14%	7.6%	1.1%	Likely to peak and moderate slowly	
Tech*	5%	10.4%	0.5%	Less clear, likely to remain supportive	
Mining Structures	1%	42.8%	0.3%	Likely to fade now that oil prices have stopped rising	
All Other Types	9%	4.2%	0.4%	Likely to remain moderate	
*Includes info-processing equipment and software				·	

The chart below provides some perspective on how the composition of business investment compares to prior cycles. As you can see, tech and mining have accounted for about 75% of the pickup in capex. Mining investment has been as strong as it was during the shale boom, and tech is about as strong as it was in the late 1990s. Other types of investment have been picking up as well, but somewhat less than we'd expect in this environment, in part due to the shift toward other types of investment, such as tech. As we'll explain further below, we'd expect most types of investment to slow gradually as growth slows and the boost from oil fades.

Attribution of Y/Y Change in Business Fixed Investment



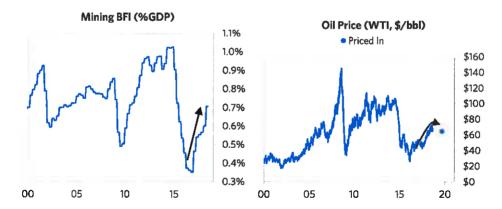
Another important reason we expect business investment to stay pretty strong over the next six months and then gradually slow is the impact of the recent tax cut and the pickup in government spending on businesses. These measures most directly incentivized capex by giving businesses more money to spend on it (by lowering their marginal tax rate) and adding direct tax incentives for them to boost spending. As the chart below shows, the various ways that recent congressional bills supported business investment is also now creating a boost that we estimate to be about 0.3% of GDP. This support hits across the categories listed above, and we estimate that this will peak in the coming months and then fade over the course of next year.



We go into a bit more detail on each segment of business fixed investment below if you are interested.

Mining Capex Likely to Slow, Since Much of the Boost from Surging Oil Prices Seems to Be Behind Us

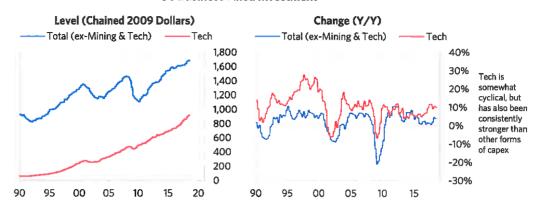
Over the last year and a half, mining capex has surged as oil prices rebounded off of their lows and rose enough to make US shale investment profitable. As the chart on the left shows, mining BFI had fallen by two-thirds during the 2015 oil bust, but has meaningfully recovered and is now back to roughly average levels. At this point, however, we think that most of the boost to growth from this rebound is behind us. Oil prices are already back at levels that make much of US oil production profitable, and are priced to level off from here.



Non-Cyclical Tech Investment Has Been a Major Support, with a Wide Range of Possibilities Going Forward

Tech spending has been a meaningful tailwind to overall investment for much of the last two decades, and this tailwind seems to remain in place. As the charts below show, investment in technology (which here includes software and information processing equipment) is cyclical, but has been clearly secularly stronger than overall investment growth for decades. More recently, the shift from other forms of investment to tech-related ones appears to have picked up—both anecdotally and in the data. As we note below, most companies continue to plan to invest heavily in this area, suggesting that it is likely to support overall capex even as the supports from fiscal policy and cyclical conditions fade.

US Business Fixed Investment



Other Forms of More Traditional Capex Have Been Picking Up Along with Demand Facing Businesses, but We Expect Them to Slow Going Forward

Investment in most areas outside of oil and tech has been picking up slowly to moderately, but has remained a bit weaker than we'd have expected with the fiscal support and strength in growth. As the chart below shows, it has barely been keeping pace with broader US growth, even though companies have a lot of cash on balance sheets, have easy access to capital, no longer have a lot of excess capacity, and have just received additional incentive through the recent fiscal stimulus. At least in part, this seems to be a reflection of the shift toward tech investment (discussed further below). Looking ahead, we expect to see this type of investment slow from even the moderate pace we have seen, since the boost from the tax cut is likely to peak soon and less stimulative central bank policy is likely to weigh on global growth.



Looking at Investment Decisions More Granularly from a Company Perspective

Capex spending reported by publicly traded companies is not a perfect proxy for business investment in the US economy as a whole. However, unlike the government-reported data, which is grouped by the type of investment, the company perspective reveals who is doing the investment. Corporate commentary in turn provides color on why they are investing, which can help indicate how much capex spending is likely linked to cyclical demand and/or fiscal policy incentives and how much is likely aligned with other drivers, like the more secular pickup in tech spending.

As shown below, the broad picture that emerges from the company-reported data on capex spending in the first half of the year is consistent with the government-reported data: capex spending was driven largely by resources and tech companies, with a few others responding to cyclical demand. A level down, a significant share (about half) of the pickup in non-financial corporate capex was driven by about 20 large companies.

1H 2018 Non-Fin Corporate Capex Spending: Top 20 Contributors

	Capex Spending (USD Bln, Ann)					Growth		
Company	Q1	Q2	1H 2018	2yr Avg	1H 2018 vs 2yr Avg	% Total Chg	Notes	
Total Non-Fin Corp	911	921	916	835	14%		na.	-
o/w Top 20 Contributors	168	181	175	130	45%	55%	-	
Microsoft Corp	12	16	14	10	78%	100	Growing cloud services business) IT companies
Facebook Inc	11	14	13	8	93%	250	Data centers, servers, network infrastructure, and offices	expanding and
Alphabet Inc	29	22	26	17	43%	475-1	Computing capacity and facilities	competing to win cloud
Intel Corp	12	18	15	13	53%	4.894	Investing in data centers to grow cloud business	computing
Amazon.com Inc	12	13	13	12	16%	16%	Expanded shipping warehouses	race
Exxon Mobil Corp	13	20	17	16	33%	46%		ን
ConocoPhillips Corp	6	8	7	5	71%	3.2%	Expanding cutting capacity	
EOG Resources Inc	6	7	6	5	63%	25%	Buliding new drilling infrastructure	Resource
Anadarko Petroleum Corp	6	7	7	5	42%	1,9%	Increasing onshore LNG project	companies
Occidental Petroleum Corp	4	5	5	4	44%	1.5%	-	responding to commodity
Noble Energy Inc	3	4	4	3	60%	1.4%	Building out new gas processors and pipelines	rally
Apache Corp	4	4	4	3	52%	1.3%	Expanding drilling in the North Sea	1
Williams Companies Inc	4	4	4	3	49%	1.2%	-	J
Norwegian Cruise Line Holdings	1	4	3	2	236%	3.3%		Cyclical
Delta Air Lines Inc	5	6	6	4	63%	23%	New aircrafts and aircraft modifications	sectors
Air Products & Chemicals Inc	1	2	2	1	115%	1.3%	Growing core packaged gas business to meet demand	meeting strong
Walt Disney Co	4	5	5	4	32%	1.1%	-	demand
Sprint Communications Inc	26	12	19	9	40%	3 1%	**	Utility co's
T-Mobile US Inc	5	7	6	5	34%	1.5%	_	expanding
EQT Corp	3	4	3	2	93%	1 8%	Maintenance of existing power infastructure	infrastructure

Among these top contributors, the tech firms' capex spending has been aimed at growing their cloud computing segments in a long-term race for market share. Commentary from a few of these players' earnings calls triangulates their reasons for spending and does note that they by and large expect their capex spending to continue at the same pace or moderate a bit. This gives us somewhat more confidence that this type of capex spending is likely to persist, even if cyclical conditions dampen.

Microsoft: "We will continue to increase our investments in capex to meet growing demand for our cloud services, although we do expect the growth rate for the year to moderate." (Q2 2018)

Intel: "Cloud revenue grew as service provider capex continued to accelerate to meet the explosive demand for digital services, artificial intelligence, and data analytics...The cloud business, our largest data center segment, grew 41% year over year, as hyperscale capex expands to handle the explosive need to transmit, store, and analyze data." (Q2 2018)

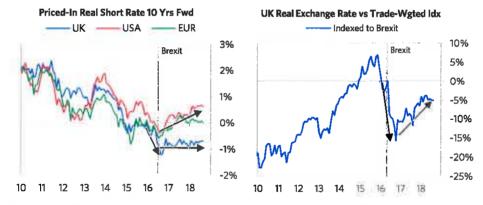
Alphabet: "We view [capex] as a lens into our outlook for growth in the required additional compute capacity...What you're seeing here is an aggressive pace of investment given our outlook for growth, and as I've said, the required additional compute capacity, we're quite focused on the kind of full resource utilization across businesses...We're quite focused on this being an aggressive pace and an appropriate one given the opportunity set we see, and it is across data centers, machines, and network infrastructure as I said." (Q2 2018)

Low Yields and a Stronger Pound Are Reinforcing an Undesirable Mix of Increased Domestic Consumption and Weak Competitiveness in the UK

Jason Rotenberg | Nassim Fedel

When we look at the discounting in UK asset markets, the bond market is pricing in extreme secular weakness, while the pound has retraced much of its decline following the Brexit vote. Real rates are discounted to remain meaningfully negative in the UK for decades, which is a much more bearish outlook than in the US or Euroland. This is also about as pessimistic an outlook as any bond market has ever discounted. The recent 25bps of tightening by the BoE hasn't done much to alter this pricing. At the same time, the UK's exchange rate has strengthened, recovering more than half the Brexit-related declines. The strength of the pound at a time when Brexit-related uncertainty remains high is having a clear negative impact on investment, exports, and production.

For now, this balance of domestic and external pressures is netting out to roughly moderate growth, but is doing so through an undesirable mix that could lead to a further rise in domestic debt levels and a further deterioration in external balances. Of course, Brexit uncertainty remains on the table, with risks to the downside and upside. Greater concern about a hard Brexit would put downward pressure on both real rates and the currency, and vice versa for less concern—though given the pricing, we see more room for currency weakness on the downside and rate increases on the upside. The charts below illustrate the divergence in the market action in bonds and the currency. Real short rates are priced to remain negative for over a decade, while the real exchange rate has rebounded and is only 5% below pre-Brexit levels.

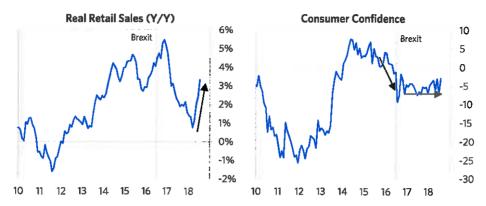


Significant Divergence Between Sectors Driven by External and Domestic Conditions

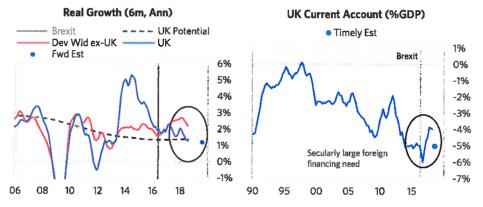
The next two sets of charts illustrate the difference between external conditions and domestic conditions. Sectors directly or indirectly exposed to external demand, such as exports, business investment, and production, are stagnating. Some of this is due to softer trading partner growth, but lack of competitiveness is contributing to the weakness in these sectors as well.



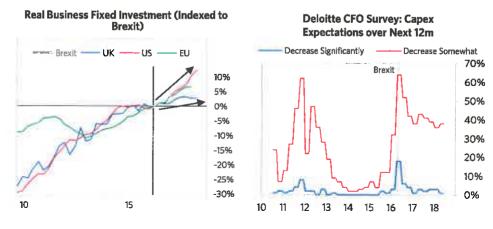
Domestic demand is picking up, and consumer confidence is no longer falling. This is happening as monetary policy continues to be quite stimulative, and as the stronger pound has somewhat reversed the post-Brexit squeeze on consumers' real purchasing power.



Improving domestic demand and weakening exports have netted out to the UK muddling through with growth at potential and likely to stay there. At the same time, the UK continues to be highly reliant on foreign capital, adding to the likely sensitivity of the pound to any renewed Brexit-related shocks.

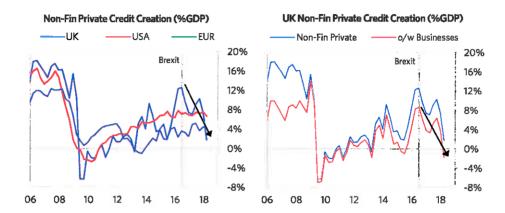


Business surveys and actual business fixed investment data are the clearest examples of how Brexit-related concerns have produced meaningful drags on the economy. What stands out is how weak UK investment has been relative to the strength of global growth and the UK's capacity constraints. US and European businesses, which have faced the same global conditions but have not been weighed down by Brexit, have significantly picked up their investment.



Bridgewater⁸ Daily Observations 8/27/2018

This weakness in investment is clear in the credit data, which is now quite weak. Business borrowing has completely stagnated. This weakness in borrowing reflects how unattractive the UK economy is for investment at current exchange rates (and as long as Brexit remains unresolved), and is also contributing to lower yields through weak demand for credit.



Bridgewater Daily Observations is prepared by and is the property of Bridgewater Associates, LP and is circulated for informational and educational purposes only. There is no consideration given to the specific investment needs, objectives or tolerances of any of the recipients. Additionally, Bridgewater's actual investment positions may, and often will, vary from its conclusions discussed herein based on any number of factors, such as client investment restrictions, portfolio rebalancing and transactions costs, among others. Recipients should consult their own advisors, including tax advisors, before making any investment decision. This report is not an offer to sell or the solicitation of an offer to buy the securities or other instruments mentioned.

Bridgewater research utilizes data and information from public, private and internal sources, including data from actual Bridgewater trades. Sources include, the Australian Bureau of Statistics, Asset International, Inc., Barclays Capital Inc., Bloomberg Finance L.P., CBRE, Inc., CEIC Data Company Ltd., Consensus Economics Inc., Corelogic, Inc., CoStar Realty Information, Inc., CreditSights, Inc., Credit Market Analysis Ltd., Dealogic LLC, DTCC Data Repository (U.S.), LLC, Ecoanalitica, EPFR Global, Eurasia Group Ltd., European Money Markets Institute - EMMI, Factset Research Systems, Inc., The Financial Times Limited, GaveKal Research Ltd., Global Financial Data, Inc., Guidepoint Global, LLC, Harvard Business Review, Haver Analytics, Inc., The Investment Funds Institute of Canada, Intercontinental Exchange (ICE), Investment Company Institute, International Energy Agency, Lombard Street Research, Markit Economics Limited, Mergent, Inc., Metals Focus Ltd., Moody's Analytics, Inc., MSCI, Inc., National Bureau of Economic Research, Organisation for Economic Cooperation and Development, Pensions & Investments Research Center, RealtyTrac, Inc., RP Data Ltd, Rystad Energy, Inc., S&P Global Market Intelligence Inc., Sentix Gmbh, Shanghai Wind Information Co., Ltd., Spears & Associates, Inc., State Street Bank and Trust Company, Sun Hung Kai Financial (UK), Thomson Reuters, Tokyo Stock Exchange, United Nations, US Department of Commerce, Wood Mackenzie Limited, World Bureau of Metal Statistics, and World Economic Forum.

The views expressed herein are solely those of Bridgewater as of the date of this report and are subject to change without notice. Bridgewater may have a significant financial interest in one or more of the positions and/or securities or derivatives discussed. Those responsible for preparing this report receive compensation based upon various factors, including, among other things, the quality of their work and firm revenues.