Twitter Thread by Emilgold

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We've already established that $INTC is about to lose serious market share in the PC market but truth be told, Intel's most important segment is probably what it terms as the "Data Center Group", it's data center business. So what are Intel's prospects there? Let's do a deep dive

> $AMZN AWS NA instances CPU market share. $TSM which manufactures both for AWS (Graviton) and $AMD is the real winner pic.twitter.com/rVPec8TdQ6
>
> — Lucid Capital (@LucidCap) December 13, 2020

While Intel's CCG segment (the PC segment) is fairly stagnant, The Data center segment (henceforth DCG) has been growing nicely for years. 2019 revenue are ~50% above 2015 and the segment has shown nice growth 2020 so far

In Millions of USD except Per Share	2019 Y	2018 Y	2017 Y	2016 Y	2015 Y
12 Months Ending	12/28/2019	12/29/2018	12/30/2017	12/31/2016	12/26/2015
Revenue	71,965 100%	70,848 100%	62,761 100%	59,387 100%	55,355 100%
Client Computing Group	37,146 52%	37,004 52%	34,003 54%	32,908 55%	32,219 58%
Data Center Group	23,481 33%	22,991 32%	19,064 30%	17,236 29%	15,981 29%

So what has enabled an old mature co like $INTC to suddenly grow so fast in a major segment?
It's kind of obvious, isn't it? the CLOUD.
The DCG segment actually contains 2 very different activities - Traditional data center and hyper cloud

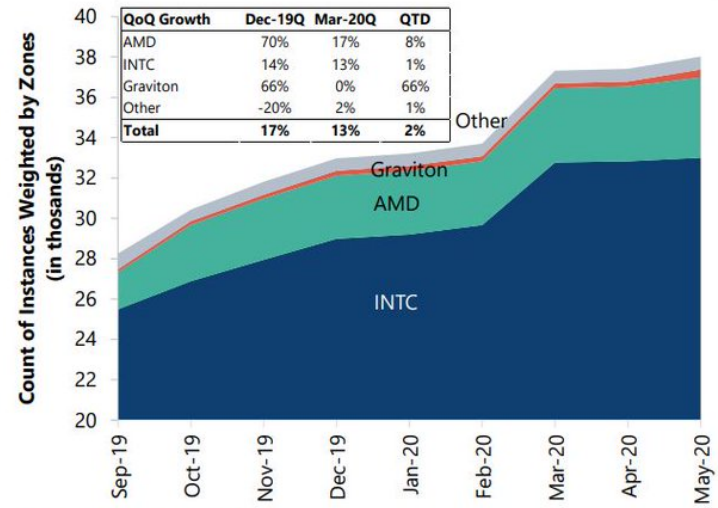
And while it's hyper cloud business was booming, it's traditional data center business was stagnating.
We estimate that between 2014-2019, Hyper cloud grew at ~30% CAGR with Traditional data center operating without growth

	2013	2014	2015	2016	2017	2018	2019
DCG cloud revenue	$2.4B	$3.3B	$4.4B	$5.6B	$7.1B	$9.9B	$11.2B
DCG cloud revenue growth		35%	34%	26%	27%	40%	13%
DCG non cloud revenue			$11.6B	$11.7B	$12.0B	$13.1B	$12.3B
DCG non cloud revenue growth				1%	3%	9%	-6%

So it's pretty easy do see that the future of $INTC lies in its hyper cloud business. We've established that it faces a bleak future in PC and traditional data center, well, let's just say it's not a growth business.

Hyper cloud is basically 3 companies: $AMZN, $MSFT, $GOOG. What is the competitive dynamic in Hyper cloud (from the CPU perspective)?
One can see that the hypercloud guys basically have 2 options: $INTC & $AMD

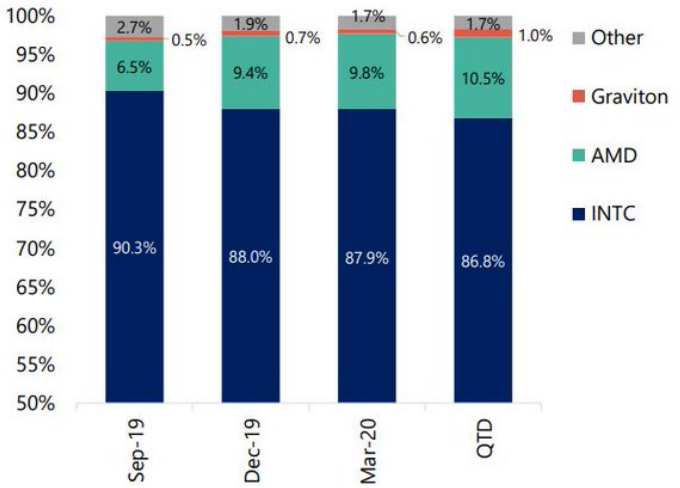
Chart 3 - INTC vs. AMD vs. Graviton Processor-Only Instances



QoQ Growth	Dec-19Q	Mar-20Q	QTD
AMD	70%	17%	8%
INTC	14%	13%	1%
Graviton	66%	0%	66%
Other	-20%	2%	1%
Total	**17%**	**13%**	**2%**

Source: Liftr Insights, Jefferies

Chart 4 - INTC vs. AMD vs. Graviton Share of Processor-Only Instances



Source: Liftr Insights, Jefferies

$INTC is rapidly losing market share to $AMD which is a bit alarming and imo is the main reason for its stock behavior lately, but I argue that while the Intel / AMD is certainly of some importance, the market is focusing on the wrong thing



I can't stop myself from thinking about the war of the five kings. While all of Westeros petty kingdoms were fighting in the south, the true threat was forming in the north, waiting to reveal itself



unbeknownst to the southerners, back in 2015 the dark lord Bezos has started gatherings his army by purchasing an obscure Israeli start-up for $350M - Annapurna Labs
https://t.co/oTWxhB1mzL

By 2018, Bezos introduced his creation to the world, the first version of his final weapon, the one who will finally vanquish his ancient rivals $INTC & $AMD, the Graviton
https://t.co/4W0TO0Km7W

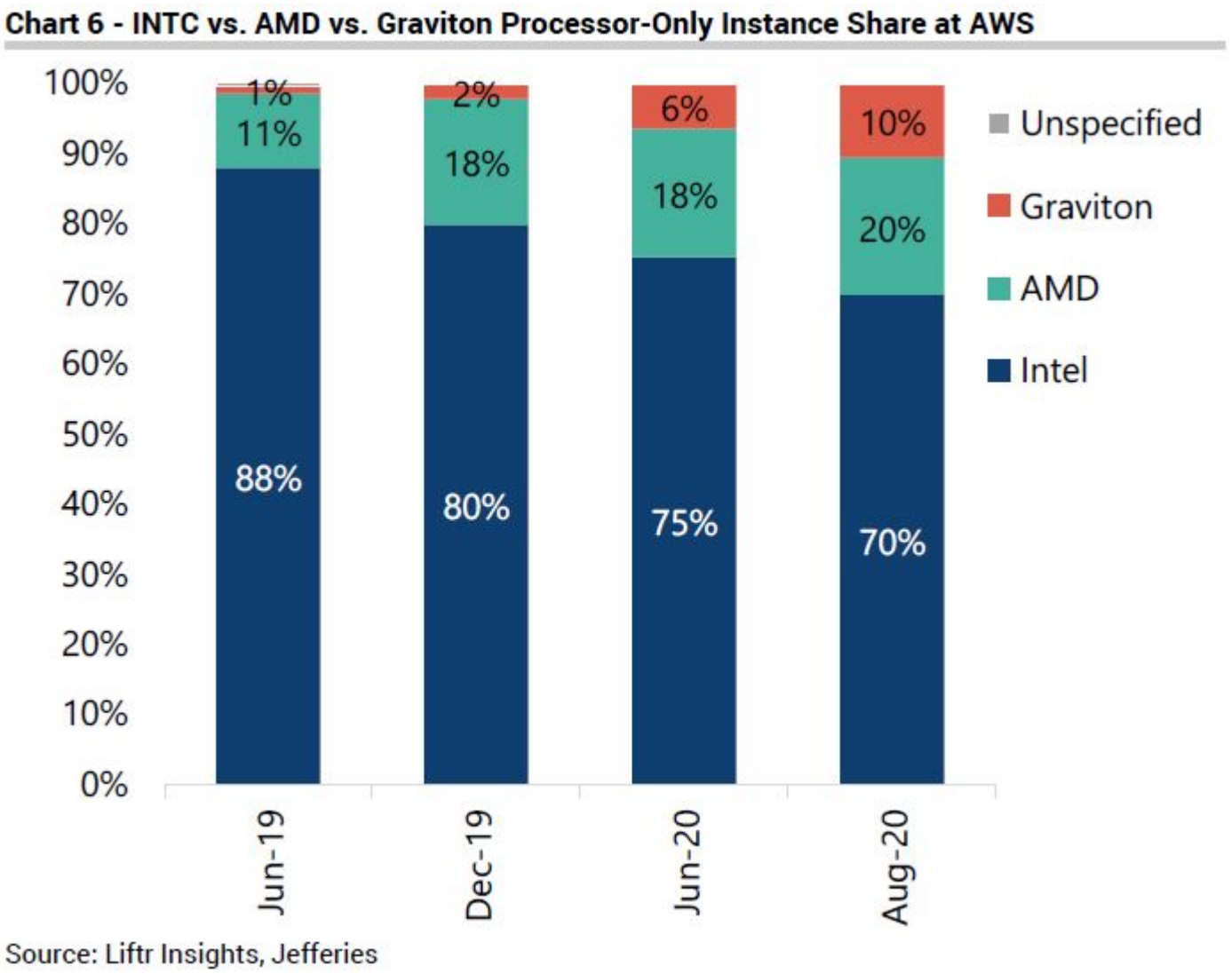
recently on May 2020, AWS released the latest Graviton version (v2) and the attack on the south has officially begun. Performance benchmarks have been quite telling - it seems like Graviton2 is on par with x86 performance wise, and is much cheaper

maybe direct quotes will illustrate it better:
"The cost analysis section describes ‘An x86 Massacre’, as while the pure performance of the Arm chip is generally in the same region as the x86 competitors, its lower price means the price/performance is substantially better"

"If you’re an EC2 customer today, and unless you’re tied to x86 for whatever reason, you’d be stupid not to switch over to Graviton2 instances once they become available, as the cost savings will be significant"

btw the quotes are from https://t.co/ptiihfJgz6. I suggest go directly to the source and read the entire article
https://t.co/0vvQnceDfI

Unsurprisingly perhaps, Graviton has rapidly gained share in AWS since the release of v2



And that's where we come full circle. What does the future holds for Graviton? luckily for us, we don't have to make some wild prediction, because the future is already here. What is the future you ask? it's the magnificent M1: Black. Magic. Fuckery
https://t.co/zwZhp1XaW6

> $INTC might be the best short opportunity since Nokia circa 2008. Why?
> Black. Magic. Fuckery.
> Follow me on the path to Intel's destruction and it all starts with the M1https://t.co/w4nMmBgwfq
>
> — Emilgold (@emilio_gold) December 2, 2020

while Graviton is on par with x86 ($INTC) on performance, the M1, which is also based on ARM, blows the x86 out of the water. It's inevitable that at some point in the next 1-2 years, AWS will release a mind blowing version of Graviton akin to the M1

At that point the battle will be lost. the dark lord and his minions will prevail, the southern kingdom ($INTC) will fall like the old great empire of $NOK

