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Liberty Global Transaction Solutions

North American M&A Report

2020 Annual

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Introduction

In 2020, North American M&A deal value dipped below the $2.0 trillion mark for just the second time since 2015. Companies completed 12,265 deals for a total of $1.7 trillion. In most sectors, the COVID-19 pandemic brought dealmaking to a near standstill in the second quarter, before interventions by the Fed, vaccine approvals, and an ebullient stock market provided enough confidence to allow dealmaking in some parts of the economy to return to healthy levels.

2020's M&A was characterized by both winners and losers. The soaring NASDAQ, proliferation of special purpose acquisition company (SPAC) IPOs and deals, and a steady stream of high-profile deals all attest to the resiliency of high-growth sectors—especially technology—during the pandemic's downturn. Semiconductors are an area to watch: Recently announced megadeals shape this geopolitically significant industry's trajectory, while Intel, long an industry leader, stumbles. Financial services and healthcare also closed out the year with significant deal activity. The pandemic's disruption combined with the relatively low cost of capital have prompted major players to both make defensive acquisitions and double down on the most profitable business lines, thereby leading to consolidation in retail brokerages, insurance, oncology, and managed care.

By contrast, the energy sector, battered by plunging demand, experienced its worst M&A year since 2009. In survival mode, producers sold off less profitable assets for liquidity and consolidated in the Permian Basin, the only profitable major US oil field remaining. Finally, although carveout activity dropped in 2020 because of cheap debt, we expect to see more divestitures across industries in the months ahead, with private equity playing a growing role on the buy side.

Wylie Fernyhough
Senior Analyst, PE Lead

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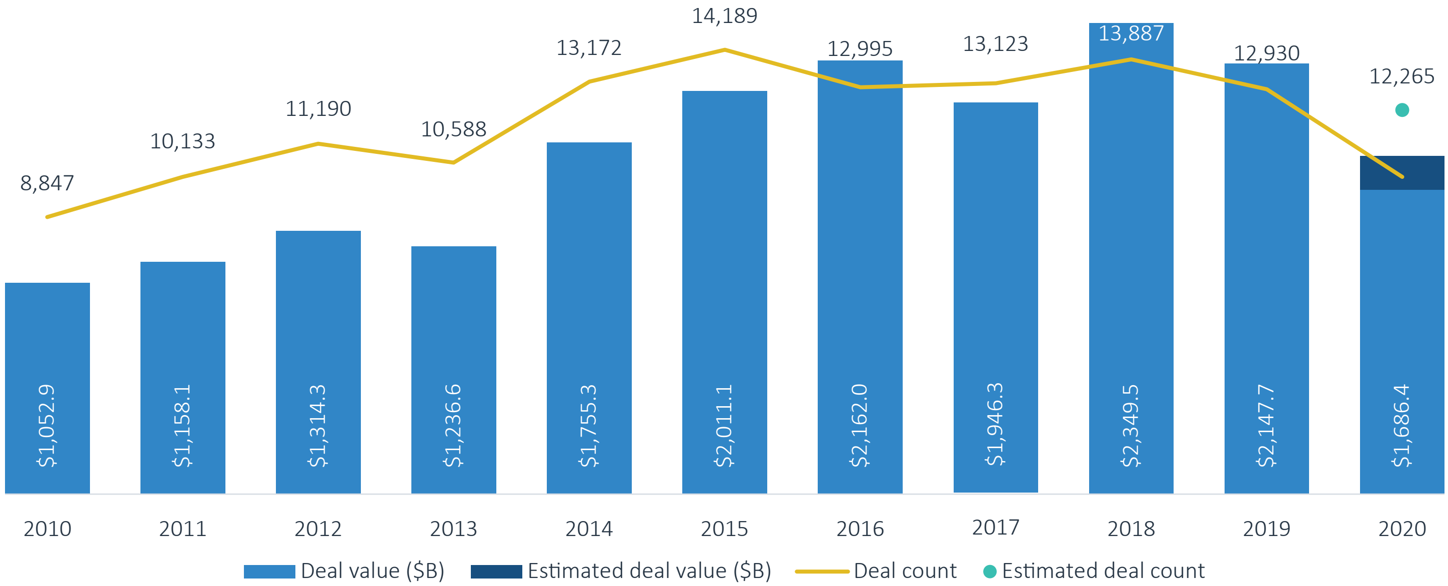
Overview

M&A activity



Source: PitchBook | **Geography**: North America

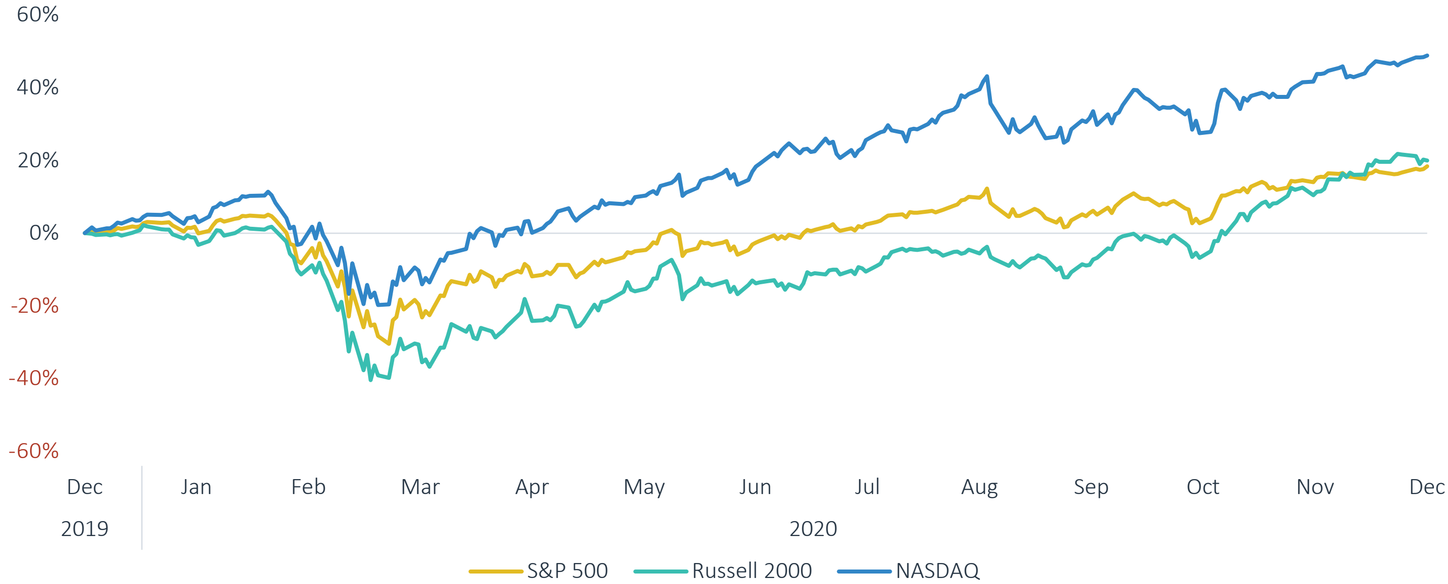
In 2020, M&A activity within North America dipped below the $2.0 trillion mark for just the second time since 2015. Companies completed 12,265 deals for a total of $1.7 trillion—marking the second straight year of declines in M&A deal count and value. Heading into the year, many were predicting a slowdown in dealmaking activity as the globe's two largest economies, the US and China, exchanged blows over trade agreements. However, almost nobody was prepared for either the economic carnage that the COVID-19 pandemic would bring or just how quickly M&A activity would seize up after the virus began to spread rapidly in March and April. Similarly, the intensity with which public equity indices and M&A activity rebounded in Q3 and Q4 caught many off guard.

The Federal Reserve's unprecedented policy actions—which included buying corporate debt, ETFs backed by highly rated bonds, Treasurys, agency mortgage-backed securities, and more—reinforced and lubricated the gears of the economy. M&A activity and equity prices rebounded, though the economy is still hurting. As the US struggles to manage the virus, more than 10 million Americans remain unemployed as of January 2021. Myriad small businesses are on the brink of permanently closing. Mexico and Canada have also struggled to keep the virus in check, though they have done a significantly better job than the US. However, US stock indices still outperformed, and the animal spirits propelled M&A activity higher than anticipated.

While most North American companies struggled during the pandemic, some companies benefitted from it, including many within the technology realm. These outliers can be visualized in relative stock index movements throughout the year. The tech-heavy NASDAQ far outperformed both the S&P 500 and the Russell 2000. Communications services and the physical infrastructure underpinning the internet benefitted from tens of millions of North Americans working from home. Similarly, the use of food delivery apps and ecommerce sites skyrocketed. These upticks in demand led to M&A within the space as some players sought to break into these newly popular markets and others worked to secure the top spots. 2020 also repopularized the IPO. Companies tend to be more acquisitive when they transition from VC backing to the public markets. Companies including Airbnb (NASDAQ: ABNB), DoorDash (NYSE: DASH), Snowflake (NYSE: SNOW), and others went public in 2020 with great fanfare.

During 2020, the SPAC become one of the hottest financing tools on Wall Street. Over 250 blank check companies raised approximately $75 billion, more than the prior decade combined. SPACs provide private companies an alternative means of publicly listing to the traditional IPO. For years, SPACs attracted mediocre sponsors drawn by the lucrative payoffs if they found a deal. Once the entity completes a reverse merger with a

Total return for select public equity indices

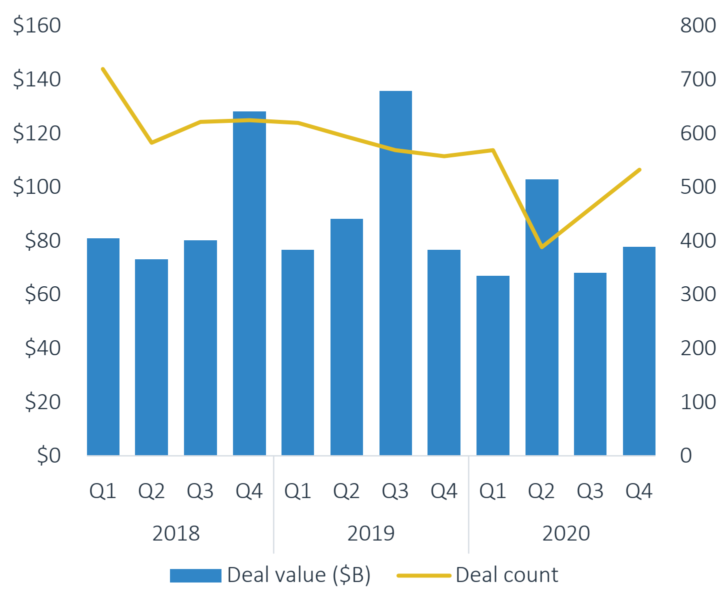


Source: Morningstar | **Geography**: US

target company, known as the deSPACing event, SPAC sponsors are typically awarded founder shares equaling 20% of the SPAC. In 2020, the quality of SPAC sponsors raised in tandem with the quality of companies choosing to go public via a SPAC. Sponsors including Social Capital, Cantor Fitzgerald, Thoma Bravo, HPS Investments, and others raised or announced plans to raise SPACs in 2020. The ability to display forward-looking financials—something Securities and Exchange Commission (SEC) regulations forbid during a traditional IPO—makes the SPAC especially attractive to technology companies. Whether for traditional software-as-a-service (SaaS), fintech, or electric vehicle companies, SPACs offer an enticing financing option. Going forward, the rise of SPACs bodes well for M&A within the technology sector. When it comes to publicly listing, companies now have more financing options and choices beyond the IPO.

In the technology sector, M&A activity remained relatively strong, declining only modestly from 2019's record highs to $315.4 billion and increasing as a share of total deal volume to 20.8%. Despite the NASDAQ's stellar performance, the sector was not immune to the effects of the pandemic. A spate of large deals propped up the sector's cumulative deal value, while the median deal size shrank slightly from 2019's record levels as fewer firms took on the risk that accompanies large-scale M&A. But, even at the nadir of the pandemic recession, the overall picture was positive. In fact, technology was the only sector wherein deal value

IT M&A activity

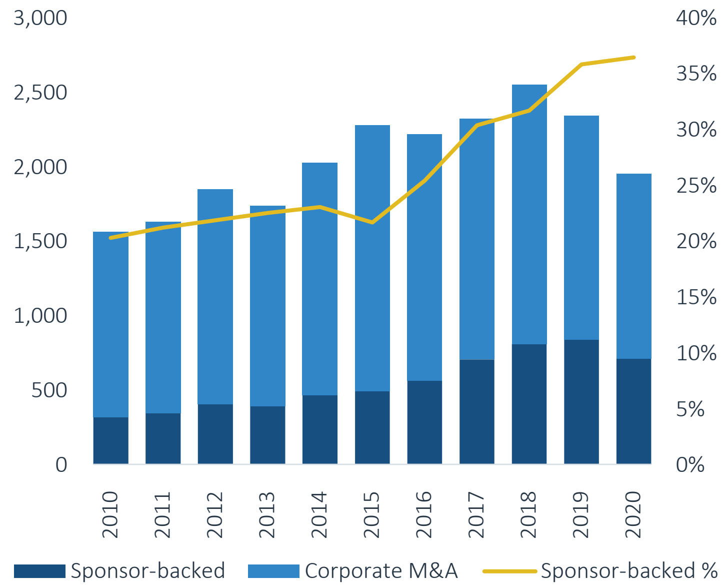


Source: PitchBook | **Geography**: North America increased from the first to second quarters of 2020, although T-Mobile's (NASDAQ: TMUS) long-planned $26.5 billion takeover of Sprint played an outsized role. M&A in the sector has shifted in focus over the past decade from scale to scope, with strategic acquirers looking to acquire innovative technologies and complementary product lines.[1] Large technology companies began 2020 with strong cash positions, which allowed them to continue to make acquisitions even as valuations soared. Salesforce's (NYSE: CRM) headline-grabbing $27.7 billion acquisition of Slack (NYSE: WORK), announced in December 2020, is emblematic of these trends.

As the Salesforce-Slack deal highlights, workplace software continues to be an area of intense activity, as more business activity shifts online and the SaaS business model proves its resilience. Financial sponsors drove several of the year's largest deals in this space. Hellman & Friedman portfolio companies Ultimate Software and Kronos (NYSE: KRO) merged to create a $22.0 billion workplace software provider focused on HR functions. Intercontinental Exchange (NYSE: ICE) bought mortgage software provider Ellie Mae for $11.0 billion from Thoma Bravo, less than two years after the technology-focused private equity firm took the company private.

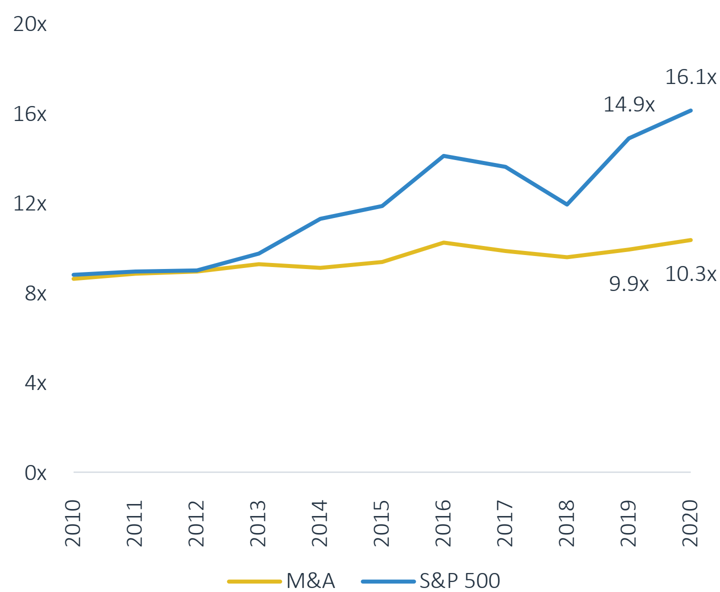
Heading into 2021, the regulatory climate remains a significant risk area for high-profile tech deals. The T-Mobile-Sprint acquisition represented the culmination of nearly a decade's worth of on-again, off-again negotiations, shaped in large part by the regulatory climate. In the end, the deal between the US' third- and fourth-largest cell providers required two years of intensive lobbying and the divestiture of Sprint's prepaid cell plan business. Verizon's (NYSE: VZ) September 2020 announcement of its plans to acquire prepaid cell provider TracFone signals further consolidation ahead. The industry is also closely watching an antitrust showdown between Facebook (NASDAQ: FB) and the Federal Trade Commission (FTC). This lawsuit is virtually unprecedented in that the FTC specifically requests that Facebook divest Instagram and WhatsApp, acquisitions Facebook made in 2012 and 2014, respectively. If successful, the possibility of ex post facto antitrust litigation could have a dampening effect on high-profile deals going forward, as politicians on both sides of the aisle focus their gaze on big tech.

IT M&A (#) by backing status



Source: PitchBook | **Geography**: North America

M&A and S&P 500 EV/EBITDA multiples

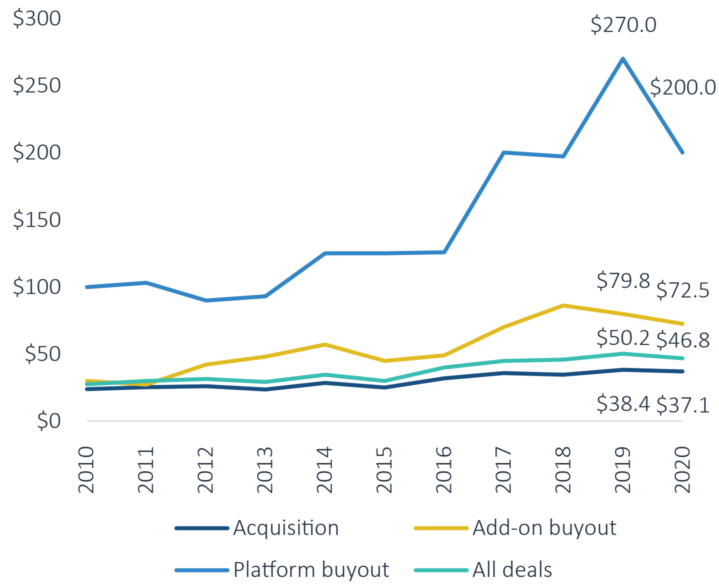


Source: PitchBook | **Geography**: North America

1: "Buying Boosts Building in Tech M&A," Bain & Co., Adam Haller & Chris Johnson, October 14, 2020.

M&A activity in the financial services sector also remained active in 2020, bouncing back with a strong Q4 to notch $232.5 billion in deal value. In fact, the sector accounted for 15.3% of overall M&A deal volume, its greatest share since 2009. Although the year's activity was nothing like the government-backed rescue bank mergers that characterized the global financial crisis (GFC), consolidation in the face of tightening margins drove asset managers to boost AUM and accounted for several of the largest deals in the financial services sector in 2020. For example, a pair of brokerage acquisitions—Charles Schwab's (NYSE: SCHW) $22.0 billion takeover of TD Ameritrade, and Morgan Stanley's (NYSE: MS) $13.0 billion grab of E*TRADE—represent continuing impacts of the industry's shift to zero trading commissions last year. (The simultaneous rise of the free trading app Robinhood is not coincidental, but the story of downward fees pressure is a longer one.) These scale-driven combinations are bets that discount brokerage customers can be upsold to more profitable asset management services.

Median M&A size ($B) by type



Source: PitchBook | **Geography**: North America

M&A activity also accelerated in the insurance sector during H2. Anticipating an extended period of low interest rates, some insurers are diversifying their offerings, while others divest noncore assets. Employer-offered group insurance is one attractive target, since these products are less susceptible to demand softening caused by low interest rates. New York Life's $6.3 billion acquisition of Cigna's (NYSE: CI) group life and disability insurance businesses demonstrates this trend. Insurance providers are also looking to fintech acquisitions to help them modernize legacy products, and technology continues to be a key driver of growth and disruption in the B2B and consumer financial services space more broadly.

Several of the year's largest M&A transactions occurred in the pharmaceutical space, where dealmaking now appears to be reapproaching pre-pandemic levels. Over the past decade, large pharmaceutical companies have scaled back their own research & development (R&D) activity in favor of acquiring the makers of promising products at the clinical trials stage. This strategy mitigates risk for the acquirers while injecting liquidity into the market for smaller companies. The pandemic may even prove to be a temporary accelerant to pharmaceutical M&A. During the pandemic, publicly traded companies assumed large amounts of debt in an effort to add cash to their balance sheets, then looked to spend it on acquisitions as investor confidence returned. Gilead's (NASDAQ: GILD) $21.0 billion purchase of Immunomedics, maker of a breast cancer treatment that has potential applications to other cancer types, was emblematic of the continued attractiveness of oncology drugs in particular. In an exception that proves the rule, Bristol Myers Squibb (NYSE: BMY) bought MyoKardia, a developer of heart drugs, for $13.1 billion in a bid to diversify its cancer-heavy portfolio.

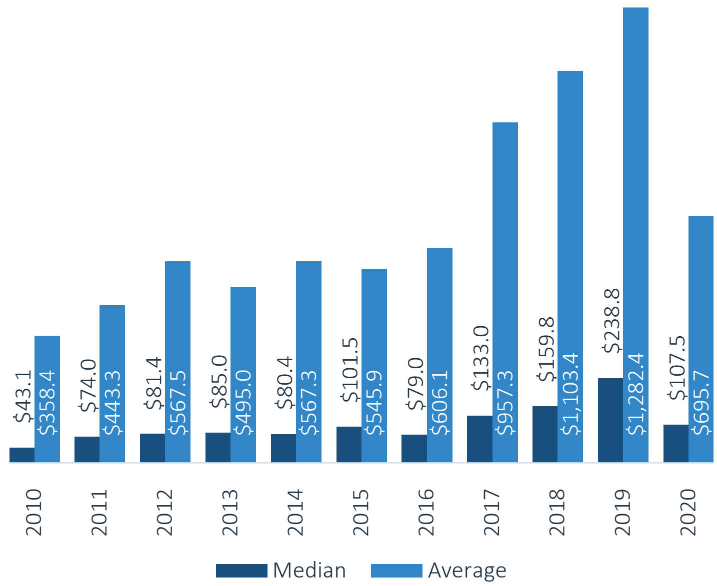
Healthcare dealmaking has begun a robust recovery from depressed second and third quarters, with the year's median deal size reaching $57.4 billion, the highest since 2006. Transactions involving both inpatient and outpatient care facilities ticked up significantly in Q4, as continuing financial pressure caused by the elective procedures delay made more practice owners amenable to acquisitions. Turning to large deals, we are seeing an arms race focused on Medicaid Advantage and other government-focused plans, with large providers gobbling up smaller ones to expand their membership and geographical reach. Following its $17.6 billion acquisition of WellCare Health Plans, Centene (NYSE: CNC) now serves 1 in 15 Americans across 50 states. Molina Healthcare (NYSE: MOH) was also on a managed care provider spending spree during 2020, including an $820.0 million acquisition of Magellan Health's managed care business. In telehealth, another noteworthy growth area, Teladoc Health (NYSE: TDOC) purchased remote diabetes monitoring company Livongo—a deal that combined the two largest publicly traded telehealth companies. The $18.5 billion deal closed in just three months, a clear sign of the timeliness of at-home healthcare plays.

However, not all corners of the M&A transactions landscape fared as well as technology, finance, and healthcare. 2020 battered the energy industry. The sector had its worst year for M&A since 2009, with just 310 deals totaling $83.2 billion. Depressed oil & gas prices had already squeezed the industry in 2019, but the plunge in demand due to COVID-19-related stay-at-home orders dealt a devastating blow—even sending crude futures prices below zero in April. As a result, divestitures and opportunistic acquisitions of distressed assets drove M&A activity in the oil & gas industry for most of 2020, a trend that halved the median transaction value YoY. Some deals already underway were also stalled or renegotiated. For example, BP's (NYSE: BP) divestiture of its upstream and midstream interests in Alaska—a long-term result of shale's rise and BP's scramble to reduce its debt load—was restructured in April to allow the buyers, The Carlyle Group (NASDAQ: CG) and ACE & Co.'s Hilcorp Energy, to pay less cash up front after the banks financing the deal balked.[2] Additionally, in March, 7-Eleven's owners called off their announced $22.0 billion purchase of Marathon Petroleum's (NYSE: MPC) Speedway gas stations, only to later reopen talks at a reduced $21.0 billion price point. Like BP, Marathon, the US' largest independent oil refiner, is looking for a cash injection to shore up its balance sheet.

In the second half of the year, we saw a shift away from smaller, distress-driven M&A toward the announcement of larger deals. This shift ran concurrent to the oil & gas industry's departure from mere survival toward defensive consolidation in an attempt to ride out continued weak demand. Four large all-stock deals focused on shale production in the Permian Basin, the US oil field with the lowest production cost, were announced in quick succession. In July, Chevron (NYSE: CVX) agreed to buy Noble Energy for $5.0 billion, a deal that closed in October. Devon Energy (NYSE: DVN) and WPX Energy's all-stock $6.0 billion merger closed in the early days of 2021. Finally, both ConocoPhillips' (NYSE: COP) purchase of Concho Resources for $9.7 billion and Pioneer Natural Resources' (NYSE: PXD) $4.5 billion grab of Parsley Energy should also close in 2021.

Renewables were perhaps the brightest spot in the energy sector in 2020. Amid a growing consensus that clean energy represents a long-term strategic bet, Sunrun (NASDAQ: RUN) purchased Vivint Solar for $3.2 billion, effectively solidifying its place as the US' leader in residential solar. The Canada Pension Plan Investment Board (CPPIB) also completed its $6.7 buyout of Pattern Energy, part of its aggressive renewables mandate.

Median and average energy M&A deal sizes ($M)



Source: PitchBook | **Geography**: North America

WTI crude oil futures ($ per barrel)

Source: Morningstar | **Geography**: US

2: "Key BP Deal Threatened by Buyer's Financing Snag," *The Wall Street Journal*, Sarah McFarlane & Christopher M. Matthews, April 9, 2020.

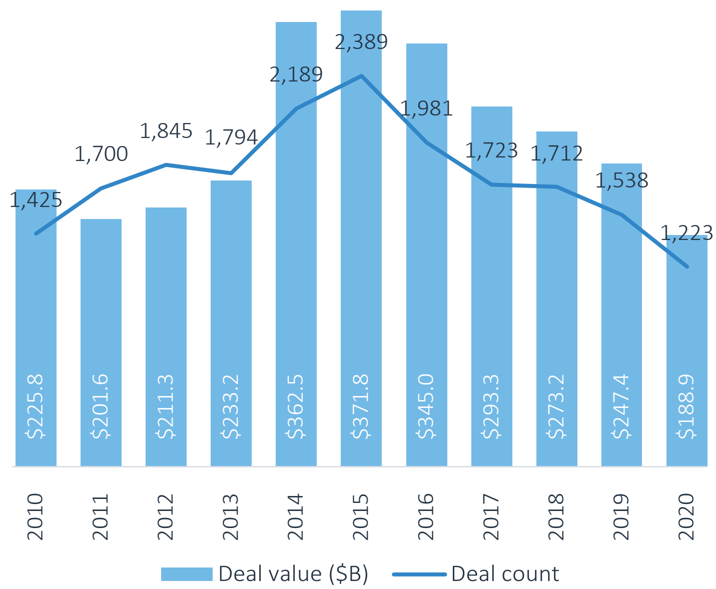
Overview

Carveout activity has waned in recent years as corporations binged on cheap debt and bought companies far faster than they divested them. In 2020, there were 1,223 carveouts, totaling $188.9 billion, which marked the fifth consecutive year of lower deal counts and value. Carveouts come about for several reasons: to appease regulators during a merger or acquisition, to bolster a balance sheet with excessive debt, or to jettison underperforming business lines. While 2020 provided examples of each, the latter reasons may drive an increased share going forward. Hoping to turn their luck around, legacy companies that have fallen on hard times such as GE (NYSE: GE) and Intel (NASDAQ: INTC) announced or completed enormous divestitures in 2020. GE sold its BioPharma business to Danaher (NYSE: DHR) for $20.7 billion, while Intel announced its intent to sell its NAND memory unit to SK Hynix (KRX: 000660) for $9.0 billion (more on that deal in the spotlight).

Another 2020 carveout was HD Supply's divestiture of White Cap, its construction and supply unit. The lower margin business was sold to PE firm Clayton, Dubilier & Rice for $2.9 billion in October before Home Depot (NYSE: HD) acquired HD Supply for approximately $8 billion in December. These transactions completed HD Supply's journey back under Home Depot's ownership, as HD Supply was carved out of Home Depot by a trio of PE firms in 2007. With hordes of companies taking advantage of cheap debt to survive the COVID-19 pandemic fallout, many may be forced to divest assets to bolster their financial positions.

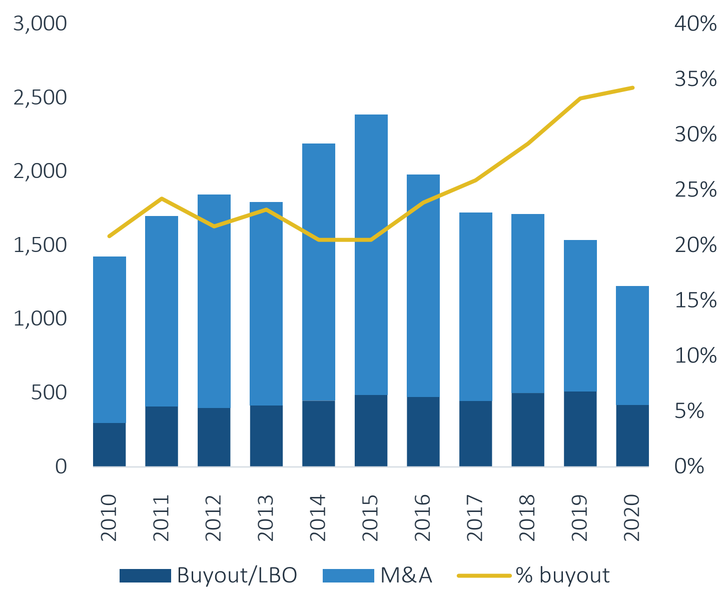
Going forward, private equity will likely play a more substantial role in carveouts. Not only does the rising level of dry powder facilitate carveouts, but the Department of Justice (DOJ) also revised its merger remedies guidelines in September 2020—the guidelines' first revision in nearly a decade. The changes describe PE firms as viable—and, in some cases, preferred—buyers of divested assets in large-scale M&A. PE firms were added as preferred buyers because their business model has evolved over the past decade, according to Makan Delrahim, assistant attorney general for the DOJ's Antitrust Division.[3] The trend is clear: Over one third of carveouts went to PE buyers in 2020, the highest levels since 2006. Going forward, this trend will likely continue alongside PE's general involvement in M&A. The public stigma formerly surrounding private equity ownership has waned, and PE is projected by many to continue accounting for a larger share of the North American economy for many years to come.

Carveout activity



Source: PitchBook | **Geography**: North America

Carveouts (#) by investor type



Source: PitchBook | **Geography**: North America

3: "Assistant Attorney General Makan Delrahim Delivers Remarks at Georgetown Law's Global Antitrust Enforcement Symposium," US DOJ, October 6, 2020.

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Will the roller coaster continue?

"M&A in North America will continue to be a busy market, but deals will be done at a calmer pace," says Rowan Bamford, President, Liberty GTS.

Rowan Bamford

President, Liberty GTS

Rowan is President of Liberty Global Transactions Solutions (GTS), which consists of over 60 underwriters spread across 11 offices in eight jurisdictions. Prior to joining Liberty GTS, Rowan managed AIG's EMEA M&A book and also spent three years as a senior underwriter at Ironshore. Before joining the insurance market, Rowan spent eight years in the corporate department at the international law firm Dentons. Rowan specialized in private M&A work in the financial services sector and spent time on secondment to an investment bank and a Lloyd's syndicate.

What a year 2020 was. From the sudden COVID-19-led deep freeze of the US M&A market in March to the unexpected thaw during the summer: 2020 culminated in one of the strongest Q4s of the decade. In a remarkable turn of events that may never be seen again in our business lifetime, forecasts for the M&A insurance market were written down by half and then doubled back up again over the span of six months.

The US election also added fuel to the deal fire. Many firms, mindful of the potential for changes in regulation and/or governmental supervision that often accompany a new administration, rushed to complete deals pre-election. Meanwhile, the tax uncertainty surrounding a potential regime change also had many companies looking to crystallize their tax liability exposures.

Looking to 2021. In 2021, the key M&A insurance market trend will be the impact of several insurers' withdrawal from the market. While the market's available underwriting capital has grown steadily in recent years, and while increased competition has lowered prices and widened terms and conditions, the recent rise in claims has led to a contraction in capacity. As weaker players disappear, terms for insurance contracts will become more stringent, and pricing will likely rise by as much as 25%-30% in 2021.

Those underwriting in 2021 will need to enforce greater discipline in the ways they look at risk. For example, the pressures of COVID-19 and the shelter-in-place orders have meant that some key aspects of due diligence—inventory control, for example—have been much harder to accurately complete. The fact that the time for due diligence has been compressed in the rush to execute deals has exacerbated these challenges.

During a difficult year, insurers initially stepped up and paid claims even when poor due diligence could have been the cause. However, many insurers are remembering the mantra "We are not here to replace due diligence." We believe this loophole in M&A policies will close in 2021. As a result, buyers will have to either assume some of the risk themselves or perform better due diligence.

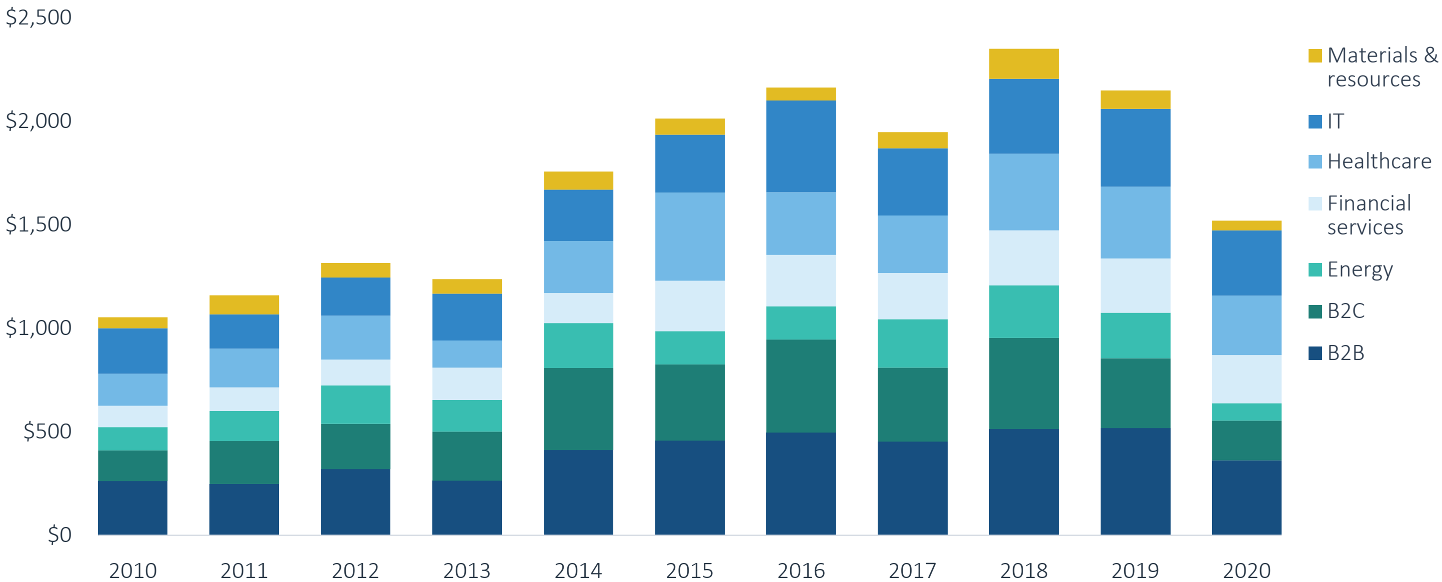
M&A will continue at pace in 2021. Although 2021's deal flow will likely be down from 2020's, there will undoubtedly still be considerable levels of activity this year. While no one wants a global recession, such a recession could lead to a rising number of distressed asset sales in some obvious sectors—leisure, hospitality, and retail, for example. With lower multiples already the norm, pricing for companies will likely remain subdued. Additionally, the need to reorganize will drive many deals rather than a rush to take profits.

However, there is a big "but" here: In times of uncertainty, buyers like to know their "floor price" for a deal, and sellers want the comfort of having divested themselves of historical liabilities. Thus, there exists an increased incentive to insure the deal to create certainty and closure for both sides. As a result, at Liberty GTS, we expect the number of *insured* deals will increase this year as a percentage of the whole.

With post-deal insurance claims in mind, I also hope to see both a slower pace for deals in 2021 and less desperation on timing, which would enable more thorough due diligence. This should bring more stability and predictability with more rational pricing and better protection wrapped around deals via appropriate insurance cover.

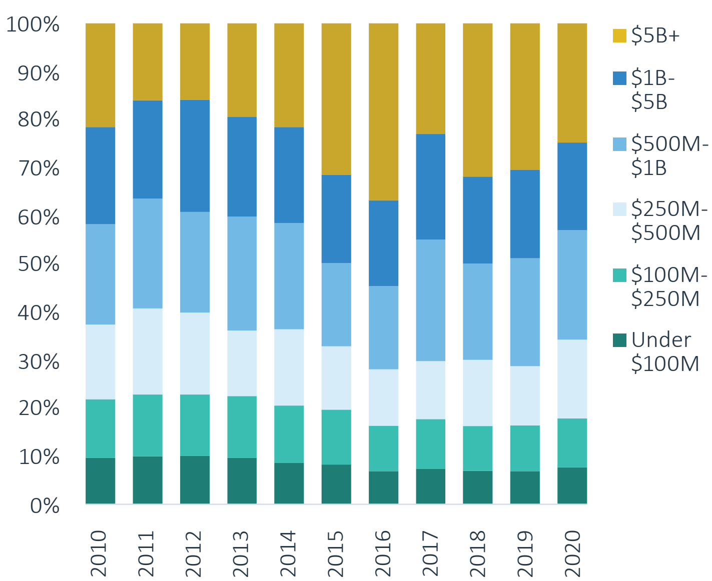
Deals by sector and size

M&A ($B) by sector



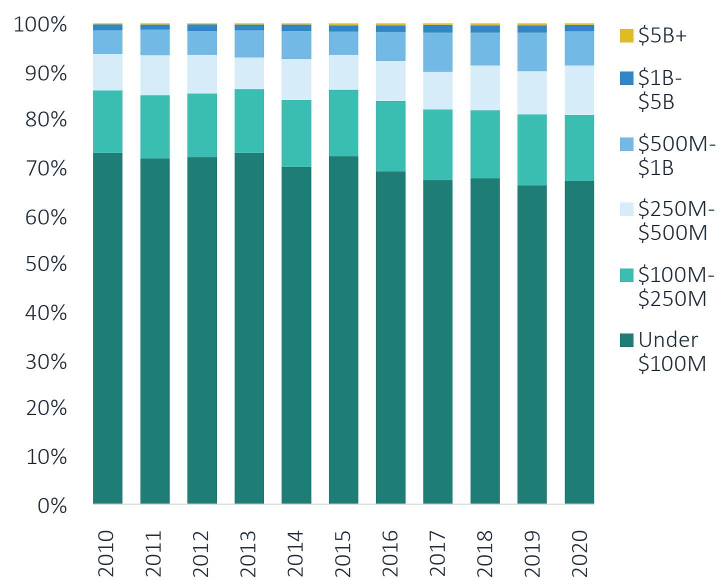
Source: PitchBook | **Geography**: North America

M&A ($) by size



Source: PitchBook | **Geography**: North America

M&A (#) by size



Source: PitchBook | **Geography**: North America

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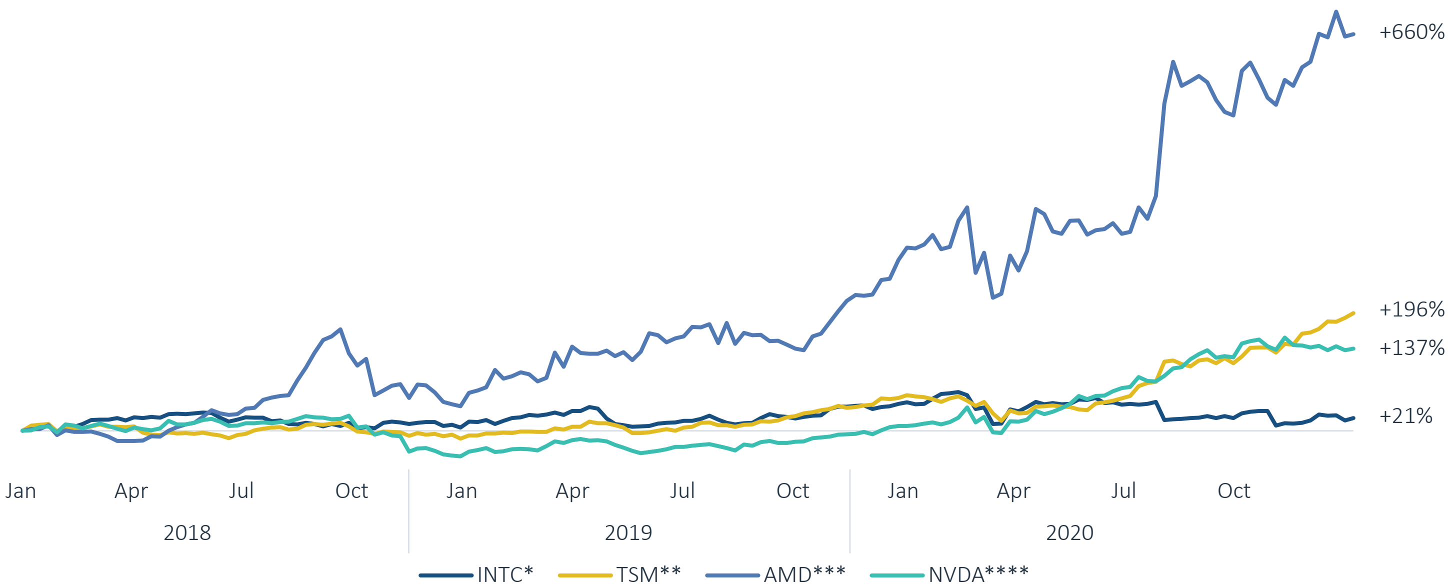
Spotlight: Semiconductors

Three-year total return for select semiconductor stocks



Source: Morningstar | **Geography**: US
*Intel Corp.
**Taiwan Semiconductor Mfg. Co. Ltd.
***Advanced Micro Devices, Inc.
****Nvidia Corporation

Perhaps no industry within technology is changing as much as the semiconductors space. Intel, long the industry's dominant player, is struggling, which opens up opportunities for several companies to take market share. Intel's issues rolling out its 7-nanometer chips culminated on January 13, 2021, when Intel ousted its CEO after activist hedge fund Third Point recommended sweeping changes. The company both designs and manufacturers its chips, a rarity in the market today. Intel recently announced a one-year delay, and some analysts fear the 7-nanometer product could be further delayed. This is what happened with the previous generation, the 10-nanometer, which experienced a six-year delay. These issues have opened the door for AMD (NASDAQ: AMD), TSMC (NYSE: TSM), and Apple (NASDAQ: AAPL) to gain market share.

Intel and AMD have long maintained a duopoly over the x86 PC chip market, though Intel dominated with 90%+ market share. AMD's recent inroads have shifted this relationship closer to an 80/20 split favoring Intel, but some five-year projections suggest the market is headed towards a 50/50 split. All those gains for AMD, which outsources its chip manufacturing to TSMC, come at the Intel's expense. Adding salt to the wound, Apple is also replacing Intel's chips in Apple products with TSMC-manufactured chips that Apple designed in-house. According to Stacy Rasgon, an analyst at Bernstein, three quarters of Apple notebooks could use these in-house chips by the end of 2021.[4] As Apple improves and scales its design capabilities, some analysts expect Apple to fully replace Intel in its own products.[5] In summary, Intel has struggled to remain the industry vanguard and is now ceding ground on several fronts. If the company cannot get its 7-nanometer process back on track, it may have to scrap the project altogether and instead outsource the manufacturing, which might also involve a processor redesign. This would also cut the number of cutting-edge chip manufacturers globally to two—TSMC and Samsung (KRX: 005930)—and likely cause headaches in Washington as neither company at the forefront of the industry would be US-based. In 2020, Intel announced it was divesting its NAND memory and storage unit for $9.0 billion. Intel could pursue additional carveouts, spinouts, and M&A as the firm's struggles endure.

4: "How the Number One US Semiconductor Company Stumbled," *Bloomberg*, Tracy Alloway & Joe Weisenthal, November 30, 2020.
5: "Apple Is at the Cutting Edge of a Revolution in Chips," *Bloomberg*, Tracy Alloway & Joe Weisenthal, December 17, 2020.

Select recent semiconductor M&A

Target company	Acquirer	Deal size ($B)	Deal status
Arm	Nvidia	$40.0	Announced
Xilinx	AMD	$35.0	Announced
Maxim Integrated	Analog Devices	$20.9	Announced
Cypress Semiconductor	Infineon Technologies	$9.8	Completed
Intel NAND	SK Hynix	$9.0	Announced
Mellanox	Nvidia	$6.9	Completed

Source: PitchBook | **Geography**: North America

Several other announced deals, all of which are expected to close in 2021 or 2022, will alter the trajectory of the semiconductor industry. Nvidia's (NASDAQ: NVDA) proposed $40.0 billion takeover of Arm Holdings is sure to alter the competitive landscape. Many articles focus on both SoftBank's (TYO: 9984) role in this deal and the head of Arm China's antics, but they often overlook the deal's broader impacts on the semiconductor industry. The proposed acquisition unites two of the world's most influential semiconductor companies. The combined entity is reportedly interested in producing an Arm-designed server solution, which would look to take market share from the current leader, Intel. Chips using Arm architectures are used in approximately 95% of the world's smartphones, which means this deal has global implications. Fearful of the ramifications of such a critical Chinese company falling into US hands, Chinese chipmakers are pressuring Beijing to block the deal.[6] Arm's business model entails licensing out its designs to hundreds of companies, many of which compete directly with Nvidia. These companies are also raising concern over the acquisition and are pressuring governments—namely the US, UK, and China—to intervene. If the deal goes through, it will cement Nvidia's dominant role within both the semiconductor space and the technology sphere more broadly.

Even if the Nvidia-Arm deal falls through, Nvidia has already improved its competitive standing for its server offerings. The firm acquired Mellanox Technologies for $7.1 billion in April. The deal is a bet on future-oriented data centers and combines Nvidia's dominant place in graphics processing units (GPUs) with Mellanox's position making switches and other networking products. Demand for quicker communications within data centers continues to mount as firms ramp up their AI & machine learning (AI & ML) capabilities. Nvidia has already announced both new GPUs and Mellanox networking hardware targeting cloud computing, supercomputers, and researchers.[7]

AMD also announced a gargantuan acquisition: In October, the company stated its intention to buy Xilinx (NASDAQ: XLNX) for $35.0 billion, which could make its server offering more competitive. Xilinx designs programmable processors that can be used to expedite specific tasks. Xilinx competes with Altera, which Intel acquired for $16.7 billion in 2015. Intel's acquisition of Altera was intended to further entrench its dominant position in the server market. The AMD-Xilinx tie-up means Intel's position in servers will likely become further eroded.

Consolidation in the semiconductor industry is occurring as seismic shifts alter the balance of power with technologies including the large-scale rollouts of 5G, AI & ML, Internet of Things, and more. Further, the superiority of the fabless chip design model is becoming clearer, while the integrated process at Intel is causing problems. Investors in the space must closely follow the competitive, technological, and political developments within the industry. Shifts here have ripple effects throughout the technological landscape. Going forward, M&A will likely play a significant role in the future of this industry as the challengers seek to hasten their ascent while the dominant companies work to secure their positions atop the industry.

6: "Arm CEO Expects Regulators to 'Take a Good Look' at the Nvidia Deal," CNBC, Sam Shead, December 2, 2020.
7: "Nvidia Unveils a Revamped Server GPU and New Mellanox Hardware," TheStreet, Eric Jhonsa, November 16, 2020.