

Life Sciences Reverse Mergers into Listed Operating Companies

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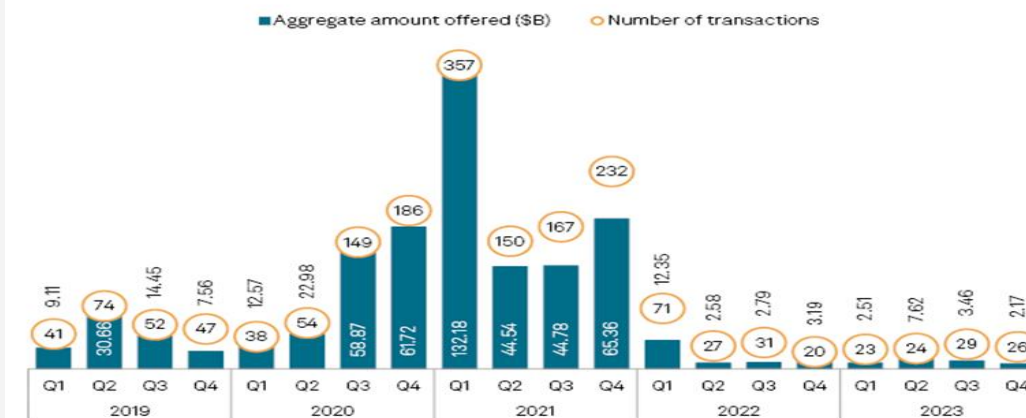
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Market overview

Initial public offering activity

- IPO activity declined significantly in 2022 and 2023 compared to historic levels.
- In 2023, global IPO volumes fell 8%, with proceeds down by 33% compared to 2022. The total number of IPOs in 2023: 1,298 (globally). Amounts raised in 2023: \$123.2 billion (globally).
- In the US, in 2023, there were only 26 IPOs launched by US companies in the fourth quarter.
- This was up from 20 launched in the same quarter in 2022 but well below the 232 launched in the fourth quarter of 2021.
- The cumulative value of securities sold through IPOs in 2023 was \$15.76 billion in 2023, down from \$20.91 billion in 2022 and well below the \$286.86 billion sold in 2021.

US IPO activity since 2019



Data compiled Jan. 4, 2024.

Analysis includes initial public offerings completed between Jan. 1, 2019, and Dec. 31, 2023, by companies headquartered in the US. Excludes private placements.

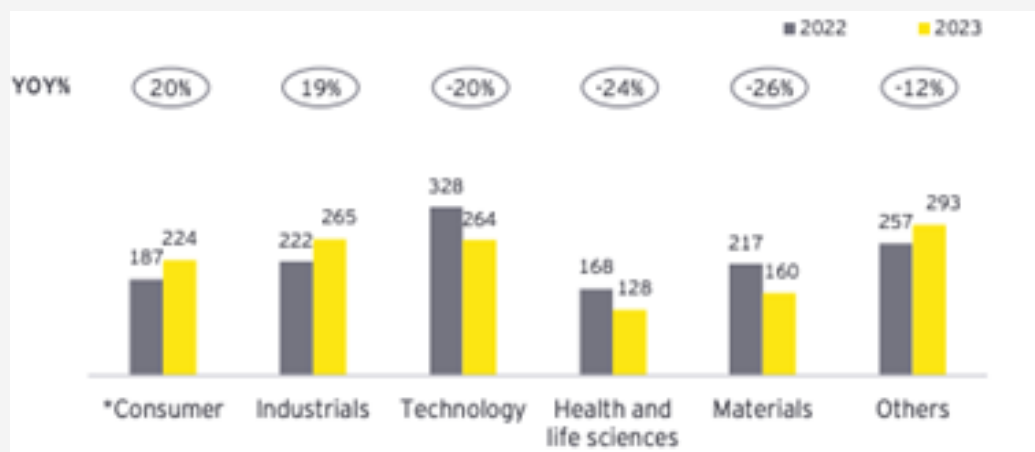
Aggregate amount offered includes overallocments.

Source: S&P Global Market Intelligence.

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Initial public offering activity (*cont'd*)

IPOs by Industry (Global)



Merger alternative

- Smaller and mid-cap biotech companies typically rely on dedicated sector investors and insiders and frequently go public in order to raise substantial amounts of capital, given the limited availability of attractive private placement financing for small and mid-sized companies.
- As a result of the difficulty and cost associated with properly executing an IPO, biotech IPO candidates have considered other alternatives, including a merger with and into an already public biotech company that previously raised public capital to fund its clinical programs, but which has failed clinical trials and is subject to liquidation.
- Instead of liquidating and distributing its capital to stockholders, these companies may be interested in considering reverse merger opportunities.
- A private company that has already commenced its IPO preparations but has found that its IPO has been delayed also may consider a reverse merger into a public company.
- Unlike the “reverse mergers” into shell companies, which raise concerns, a reverse merger into an operating company can be a worthwhile alternative.

Recent reverse merger transactions

- On November 15, 2023, LENZ Therapeutics and Graphite Bio, Inc.
- On October 23, 2023, INVO Bioscience, Inc. and NAYA Biosciences Inc.
- On August 29, 2023, Serina Therapeutics, Inc. and AgeX Therapeutics, Inc.
- On July 18, 2023, Neurogene Inc. and Neoleukin Therapeutics, Inc.
- On July 14, 2023, Korro Bio, Inc. and Frequency Therapeutics, Inc.
- On May 23, 2023, CohBar and Morphogenesis

Not a Merger into a Shell Company

Distinguishing among “reverse mergers”

- Historically, some companies considered “backdoor IPOs,” which included reverse mergers into public shell companies, or more recently, mergers with SPACs.
- Reverse mergers into public shell companies raise significant concerns (not raised by merging into an operating company), including:
 - Most public shell companies were formed by sponsors or promoters that have financial interests that may be in conflict with the interests of other stockholders.
 - Shell companies often have contingent liabilities.
 - Shell companies usually are listed only on the OTC Bulletin Board, which is of limited utility.
 - Shell companies are subject to very onerous requirements under the Securities Act of 1933, which have the result of creating a “stigma” for shell companies. For example, a “shell company” is generally limited in its use of certain communications (it cannot use free writing prospectuses) and in its ability to rely on the Rule 144 exemption for resales of its securities.
 - Limitations on the use of Form S-3

Distinguishing among “reverse mergers” (*cont’d*)

- A merger into a public biotech company can be distinguished from a reverse merger into a shell company.
- For example:
 - The public biotech company will have undertaken a traditional IPO and will have been an SEC reporting company. It generally would not be considered a “shell company” for SEC purposes.
 - The public biotech company will likely have a class of securities listed on the Nasdaq (not OTC Bulletin Board), which will inherently make it easier for the combined company’s securities to be admitted to trading on the Nasdaq.
 - Given that the public biotech company is already an SEC reporting company, there will be greater transparency and it will be easier to conduct thorough due diligence.
 - Market perception: Although there are a limited number of reverse mergers into public biotech companies, the market perception of such transactions is different from the negative perceptions of reverse mergers into public shell companies.

Comparing a reverse merger and a SPAC business

	Reverse Merger	SPAC
Diligence	Private Co will need to undertake rigorous diligence of Pub Co	Diligence of SPAC will be quite limited given SPAC has no operating business
Contingent Liabilities	Private Co will need to consider any Pub Co litigation, threatened litigation or similar claims	Unlikely for there to be any litigation or other similar concerns in connection with the combination itself
Management and Employee Matters	Private Co may need to address legacy employees, handle reduction in force or severance arrangements, as well as navigate board transitions	Usually there will be a very limited SPAC team. Management of Private Co will comprise the leadership of combined company. SPAC sponsor will want some minority representation on board for some time
Documentation and Disclosures	M&A agreement with disclosure schedules Proxy or S-4 required. Disclosure will be similar	M&A agreement with disclosure schedules. Process likely simpler S-4 will be required Disclosure similar

Comparing a reverse merger and a SPAC business *(cont'd)*

	Reverse Merger	SPAC
Cash Balance	No redemption risk; may be supplemented by a PIPE transaction to raise additional proceeds	Redemption risk. Redemption risk may be mitigated by agreements between SPAC and affiliates agreeing not to redeem and to support deal and by a PIPE transaction or a variety of other financing transactions
Perception	More historical successes	Shorter history/track record for life sciences

Rationale

Life Sciences Reverse Mergers and Alternatives to IPOs

Reasons a Private Company May Choose to Pursue a Reverse Merger with a Public Co

- Access to a sizeable cash balance
- Public attention versus staying truly private
- Ability to set your “starting” public valuation via the merger exchange ratio
- Investor considerations
- Ability to access the public markets at an earlier point in time than a traditional IPO process

Structural considerations

Basic structuring options

- Generally, two alternatives:
 - Merger with and into existing public company; existing public company will issue stock in a private placement transaction to Private Co holders in exchange for their existing Private Co stock; combined company will change its name to Private Co; and application will be made to Nasdaq (Nasdaq generally requires a new listing).
 - This alternative would require a proxy or information statement to be prepared and filed by the existing public company and the existing public company will seek shareholder approval for the transaction. An information statement may be less time-consuming to produce than an S-4 proxy/prospectus.
 - Newco subsidiary is formed and merged with and into existing public company; newco subsidiary files a proxy/prospectus on Form S-4 and securities are issued in the merger transaction pursuant to the proxy/prospectus.
 - Existing public company will seek shareholder approval for the transaction.

Life Sciences Reverse Mergers and Alternatives IPOs

Key Structural Considerations

- Exchange ratio
 - Fixed vs sliding scale
 - Adjustments at closing
- Board/employee/HQ matters
 - Who controls the board?
 - Adoption of new incentive plans
- Merger agreement
 - Support agreements
 - Insider lock-ups (generally 90-day to 180-day lock-ups)
 - Severance and other change of control payments triggered
- Concurrent financings
 - PIPE transaction to raise additional capital
- Downstream CVRs of legacy programs

Life Sciences Reverse Mergers and Alternatives IPOs

Key Process Considerations

- Preparation checklist
- Process expectations
- Valuing the public company
- Handling assets of the public company
- Exclusivity during negotiations

Life Sciences Reverse Mergers and Alternatives IPOs

Ideal Attributes of a Public Counterparty

- Sizable net cash balance
- Pre-merger shareholder considerations
 - Securing of shareholder “yes” votes easier if investor ownership is concentrated
 - Support from “sector specialists” validating to new investors
- Status of clinical operations/programs
- Management reputation

Other considerations

Diligence matters

- For Private Company, consideration should be given to how the proposed transaction will impact:
 - Existing employment agreements – will any change of control payments be triggered? Will any grants be vested? Will any severance payments come due?
 - Option and other comp plans
 - Is a new option plan needed? How should it be put in place? Does it need to be added to the proxy statement?
 - Are any retention agreements needed?
 - Lease agreements and other commercial arrangements
 - Financing agreements, such as bank lending arrangements or outstanding venture debt
 - Warrants and other convertible, exchangeable or equity-linked securities
 - License or collaboration agreements
 - Net operating loss utilization analysis

Diligence matters *(cont'd)*

- For Private Company, diligence of the Public Company will take into account:
 - Public Company assets
 - Public Company contractual commitments
 - Public Company liabilities triggered as a result of the proposed transaction
 - Public Company litigation
 - Public Company D&O insurance

Merger agreement related matters

- Public Company will expect robust representations and warranties from Private Company
- Does Private Company have multiple series of outstanding preferred stock? Do holders have different interests? Will holders benefit or be diluted? Any outstanding dividend rights?
- Does Private Company have audited and interim financial statements available? This will affect timing.
- As with other M&A transactions, the parties will focus on:
 - The definition of Material Adverse Effect
 - Knowledge qualifiers and persons at company that are identified as having knowledge
 - Fundamental representations and survival of such representations
 - Conditions to close
 - Regulatory approvals
 - Non-solicitation provisions
 - Termination rights
 - Break-up fees

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Accounting and SEC Reporting



SEC REPORTING FOR REVERSE MERGERS

DETERMINING THE ACCOUNTING ACQUIRER UNDER US GAAP

- ▶ Assume SEC Registrant, which has more than nominal assets and operations (and is not a “shell”) intends to acquire a Private Operating Company (OpCo) and both report under US GAAP
- ▶ Under ASC 805 for each business combination, one of the combining entities shall be identified as the acquirer
- ▶ The accounting acquirer analysis begins with an assessment of whether OpCo is a variable interest entity (VIE) or voting interest entity
- ▶ **If OpCo is a VIE:** then primary beneficiary is the acquirer (continuous re-assessment upon all investment and certain other events) following guidance in ASC 810-10
- ▶ **If OpCo is a voting interest entity:**
 - ▶ If SEC Registrant pays for a controlling share (greater than 50%) of OpCo’s equity in cash or other assets only, SEC Registrant is ordinarily the accounting acquirer
 - ▶ If SEC Registrant and OpCo exchange shares to effectuate their merger, further analysis using the criteria in ASC 805-10-55-11 through 15 is required to determine which one of the two is the accounting acquirer
 - ▶ If OpCo is determined to be the accounting acquirer (but legal acquiree), the transaction is described in US GAAP as a “reverse acquisition” or “reverse merger”



SEC REPORTING FOR REVERSE MERGERS

DETERMINING THE ACCOUNTING ACQUIRER UNDER US GAAP

Identifying the accounting acquirer when one is not “obvious”

- ▶ Relative voting rights
 - ▶ The acquirer usually is the combining entity whose former owners receive the largest portion of the voting equity in the combined entity
 - ▶ Consider the existence of any special or unusual voting arrangements, options, warrants or convertible securities
- ▶ Existence and size of a single minority voting interest in the combined entity
- ▶ Composition of governing body
 - ▶ The acquirer usually is the combining entity whose owners have the ability to elect/appoint or remove a majority of the Board
- ▶ Composition of management
 - ▶ The acquirer usually is the combining entity whom former management dominates management of the combined company
- ▶ Relative size of the combining entities (revenues, assets)
- ▶ Entity that pays a premium over pre-combination fair of shares of the other entity
- ▶ **If OpCo is a limited partnership**
 - ▶ The power to control (and hence be considered the acquirer and consolidate) may exist through contract, agreement with the other owners
- ▶ **Common control mergers** - no need to identify an accounting acquirer



SEC REPORTING FOR REVERSE MERGERS

FINANCIAL CONTENT OF PROXY/S-4

- ▶ Merger Proxy and/or Registration Statement on S-4
- ▶ Pro forma financial statements must be provided to depict the expected accounting for the merger
 - ▶ If OpCo is the accounting acquirer, acquisition accounting is applied to the assets and liabilities of the SEC Registrant in the pro-forma
 - ▶ Identify and record intangibles and remeasure substantially all assets and liabilities of the SEC Registrant at fair value
 - ▶ The accounting acquiree (the SEC registrant) must meet the definition of a “business” in ASC 805
- ▶ Follow instructions for “Target Company” financial statements in S-4 or proxy statement
 - ▶ US GAAS or PCAOB audit reports permissible for 3 years of OpCo financial statements
 - ▶ If SEC Registrant is EGC (but not an SRC) and has more than 1 annual report on file: 3 years for OpCo
 - ▶ If SEC Registrant is SRC and OpCo would be an SRC (less than \$100m revenue): 2 years for OpCo
 - ▶ If SEC Registrant is not an EGC or SRC but OpCo would be an SRC (less than \$100m revenue): 2 years for OpCo
 - ▶ OpCo applies US GAAP for “Non SEC-filer”
 - ▶ OpCo does not have to provide “public company” disclosures like EPS and segments, but must provide those for PBEs
 - ▶ Auditor of OpCo needs to be independent in accordance with AICPA standards only



SEC REPORTING FOR REVERSE MERGERS

WHEN THE MERGER CLOSSES

- ▶ Item 2.01 Form 8-K reporting close of merger within 4 business days
- ▶ Item 4.01 about any intended changes in independent accountant when the auditor of the OpCo is selected to continue as auditor of the combined company
- ▶ Item 5.01 Change in control of the registrant
- ▶ **Item 9.01 Financial statements of the accounting acquirer (OpCo) and related pro-forma information**
 - ▶ Updated, if those included in the S-4 and/or proxy are stale
 - ▶ Same as those in the S-4 and/or proxy if they are current
 - ▶ May be filed on Form 8-K/A within 71 calendar days of the original due date of the Form 8-K
 - ▶ Financial statements of the OpCo replace those of the SEC registrant in next registration statement or periodic report
- ▶ Auditor of the combined company must be PCAOB-registered and SEC/PCAOB rules independent for every period after the merger and for all annual periods of the OpCo (accounting acquirer) included in the Form 8-K or 8-K/A
- ▶ **However, if the SEC registrant is determined to be a shell:**
 - ▶ S-4/Proxy to include PCAOB audit reports for the OpCo and public company disclosures in OpCo financial statements
 - ▶ Reverse recapitalization accounting in the pro-forma financial statements

The final SPAC rules

SPAC introduction

- What is a SPAC?
 - A newly formed company with no assets or operations
 - Registers with the U.S. Securities and Exchange Commission (“SEC”) the offer and sale of stock and warrants
 - Business plan: find an operating company to buy using IPO proceeds
 - May or may not specify industry or geographic focus
 - Must identify a target company to acquire within a specified time frame
- For an operating company, merging with and into a SPAC is an alternative to a traditional IPO

Shell company status and ineligible issuer status

- SPACs constitute “shell companies” as defined in Rule 405. Therefore:
 - A SPAC is an “ineligible issuer” and may not use free writing prospectuses
 - Without free writing prospectuses, roadshows are subject to additional limits
 - This is important to consider in connection with the SPAC IPO and also in connection with any PIPE transaction
 - Holders of the SPAC’s securities may not rely on Rule 144 for resales until:
 - One year after the SPAC has completed its initial business combination and filed its super 8-K
 - The SPAC files Form 10 information in the super 8-K
 - The SPAC files periodic reports required by Section 13 or 15(d) for the prior 12 months
 - A SPAC cannot become a well-known seasoned issuer (WKSI) until three years have passed since its initial business combination

Amendments to Rules Relating to SPACs, Shell Companies and Projections

- The SEC adopted final rules on January 24, 2024 (voting 3-2) that were substantially similar to the proposed rules released for comment nearly two years earlier despite significant comment. The final rules:
 - Require **increased public disclosures in connection with SPAC IPOs and de-SPAC transactions**, (e.g., additional disclosures regarding SPAC sponsors, dilution, SPAC sponsor compensation, factors considered by the SPAC's board in evaluating a proposed business combination, disclosures of any opinion received from a third party regarding the de-SPAC transaction (e.g., a fairness opinion) and additional disclosures about the target company);
 - Require **new disclosures related to projections in de-SPAC transactions** (e.g., purpose for projections and who prepared them, all material bases and assumptions underlying the projections and whether the projections continue to reflect the views of the preparer);
 - Adopt a new definition of "blank check company" for purposes of the Private Securities Litigation Reform Act of 1995 (the "PSLRA") that **renders the PSLRA's safe harbor for forward-looking statements unavailable for SPACs**.



PROJECTIONS

- **Final Rule amends Item 10(b) of Regulation S-K, Commission Policy on Projections**
 - Expands disclosure requirements for projected financial information (PFI)
 - Reasonable basis and all material assumptions underlying the PFI
 - **Clearly Differentiate Two Categories of PFI**
 - Projected measures not based on historical results or operating history
 - Projected measures that are based on historical result: present those on comparative basis the historical results with equal or greater prominence
 - Management should take care that to assure that the choice of items projected is not susceptible to **misleading inferences through selective projection** of only favorable items
 - To that end: Revenues, net income (loss) and earnings (loss) per share are usually presented together
 - For each key selected assumption disclose the most probable (or the most reasonable range) for each item projected
 - New Item 1609 of S-K for PFI in De-SPAC filings
 - Purpose for which the projections were prepared and party that prepared the projections
 - Whether the disclosed projections reflect the view of the SPAC or Target company management and/or Board as of the most recent practicable date prior to the disclosure document required to be disseminated to security holders

Business combinations with a shell company as sales to the shell company's stockholders

- Under new Rule 145a, any business combination of a reporting shell company involving another entity that is not a shell company would be deemed to involve a "sale" of securities to the reporting shell company's stockholders regardless of how the transaction is structured.
- Since a SPAC would be a reporting shell company, **new Rule 145a effectively requires any de-SPAC transaction to either be registered or to qualify for an applicable exemption.** The rationale: "[a] change in a reporting shell company's status via a business combination with an operating company results in the reporting shell company investors effectively exchanging their security representing an interest in the reporting shell company [...] for a new security representing an interest in a combined operating company."
- Section 3(a)(9), which exempts any exchange by an issuer with its existing security holders exclusively where no commission or other remuneration is paid or given directly or indirectly for soliciting such exchange, would likely not be available for transactions covered by new Rule 145a.

Business combinations with a shell company as sales to the shell company's stockholders *(cont'd)*

- Adopting Release: Deemed exchange by the reporting shell company's existing stockholders for the combined company's securities should be viewed as part of the same offering as the exchange of the private company's securities for their interests in the combined company and as a result the exchange is not "exclusively with the reporting shell company's existing security holders."
- Any shell company that hires and compensates a proxy solicitor to solicit approval of the reporting company's stockholders for the business combination would create an independent reason to render Section 3(a)(9) unavailable.
- Even if an exemption were applicable, by deeming these transactions to include a "sale" under the Securities Act, investors will have the protections of the anti-fraud provisions in Section 17(a) of the Securities Act and Section 10(b) of and Rule 10b-5 under the Exchange Act.
- New Rule 145a does not apply to:
 - Business combinations between two bona fide non-shell entities;
 - Transactions involving reporting shell companies that are business combination-related shell companies; and
 - Business combinations of one shell company into another shell company.

Business combinations with a shell company as sales to the shell company's stockholders *(cont'd)*

- Interestingly, the SEC staff has been finding that many reverse mergers with life sciences companies (ostensibly operating companies with failed clinical programs) involve “shell companies.”
- Considerations relating to “shell company status” include:
 - Whether the primary purpose of the reverse merger is to provide cash and a stock exchange listing to the private company.
 - Whether the public company has more than nominal assets and operations during the time between signing and closing of the reverse merger.
 - Whether the reverse merger is accounted for as a reverse recapitalization.
 - Whether any issued contingent value rights could be deemed securities.
- New Rule 145a imposes increased disclosure and liability burdens on the private company in a reverse merger when the public company is a shell company.
- Creates risk for those reselling investors that had previously acquired shares in a reverse merger and need to rely on Rule 144 for their resale.

Additional resources

Read more:

- [SEC Adopts Final Rules Relating to SPACs, Shell Companies and Projections](#)



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- Brian represents US and foreign private issuers, sponsors, and investment banks in registered and unregistered securities offerings, including:
 - Initial public offerings
 - Follow-on offerings
 - Private placements (including Rule 144A and PIPE transactions)
 - At-the-market offerings
 - Registered direct offerings
 - Liability management transactions
 - Preferred stock and debt offerings
- Brian serves clients on specialty finance, real estate and real estate investment trusts (REITs), business development companies (BDCs), and life sciences company deals. He also assists public company clients with ongoing securities law compliance requirements, listing standards of the major US stock exchanges, SEC public reporting obligations, shareholder-related disputes, and governance matters.



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- Polia Nair has nearly two decades of experience advising clients on the application of complex Securities and Exchange Commission (SEC) and US GAAP financial reporting requirements. A member of CohnReznick's National Assurance Practice, her experience encompasses a broad range of topics including IPO and other registration statements; pro-forma financial information; proxy statements and other transactional filings for mergers and acquisitions; reverse mergers with SPACs; recapitalizations; and restructuring activities.
- In addition to her extensive SEC reporting experience, Polia provides technical accounting expertise related to business combinations; share-based compensation; revenue recognition; consolidations and variable interest entities. Her clients include major business stakeholders such as investors, private equity sponsors, securities counsel, and underwriters.



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- Anna represents issuers, investment banks/financial intermediaries and investors in financing transactions, including IPOs and other public offerings and private placements of equity and debt securities.
- She works closely with financial institutions to create and structure innovative financing techniques, including new securities distribution methodologies and financial products. She has particular financing experience in certain industries, including tech, telecommunications, healthcare, financial institutions, REITs and consumer and specialty finance.

Annex

