

♥ SciencesPo

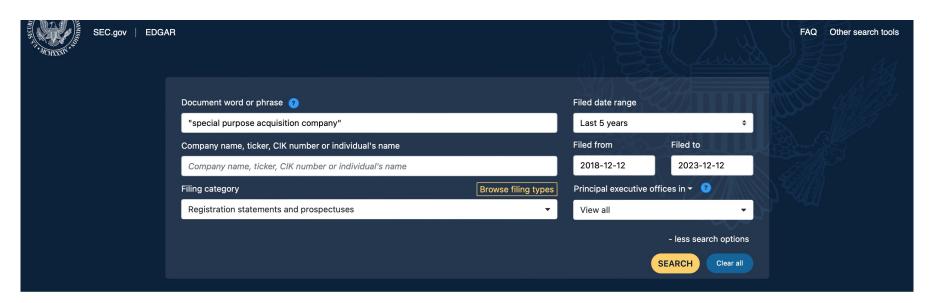
SPAC size and dilution evolution Antoine Clapaud & Louis Noirault

December, 12th 2023

SciencesPo

1. Scraping EDGAR





Refine search results by:



4,270 search results

Show Columns

☑ Filed ☑ Reporting for ☐ CIK ☐ Located ☐ Incorporated ☐ File number ☐ Film number

Form & File	Filed	Reporting for	Filing entity/person	
S-1 (Registration statement) EX-99.4	2021-03-05		Callodine Acquisition Corp	
S-1 (Registration statement)	2023-12-06		FG Merger III Corp.	
S-1/A (Registration statement)	2022-01-05		Apollo Strategic Growth Capital III (APGC)	
S-1/A (Registration statement)	2022-01-12		Apollo Strategic Growth Capital III (APGC)	

```
def click s1 links(driver):
    # Create an empty list to store the results
    results = []
    num pages = 2 # Set the number of pages to scrape
    for page in range(num pages):
        s1 links = driver.find elements(By.XPATH, "//a[contains(@href, 's1.htm')]")
        # Iterate through the found links and click on each of them
        for link in s1_links:
            # Extract the href attribute from the link
            href = link.get attribute("href")
            print(f"Opening link: {href}")
            # Click on the link using JavaScript
            driver.execute script("arguments[0].click();", link)
            # Wait for the modal to appear and handle it
            try:
                WebDriverWait(driver, 7).until(EC.visibility_of_element_located((By.ID, "previewer")))
                # Handle the modal by sending ESC key, assuming it's a dismissible overlay
                driver.find element(By.TAG NAME, 'body').send keys(Keys.ESCAPE)
            except Exception as e:
                print(f"Error handling modal: {e}")
            # Add a delay to give time for the page to load or handle any pop-ups
            time.sleep(6)
            # Switch to the iframe
            try:
                iframe = driver.find_element(By.ID, "ipreviewer") # Replace "ipreviewer" with the actual iframe ID
                driver.switch to.frame(iframe)
                print("Switched to iframe")
```

```
# Switch back to the default content
        driver.switch_to.default_content()
        print("Switched back to default content")
    except StaleElementReferenceException:
        print("StaleElementReferenceException: Trying to find iframe element again.")
        continue
    except Exception as e:
        print(f"Error switching to iframe: {e}")
if page < num_pages - 1:</pre>
   try:
        next_page_link = driver.find_element(By.XPATH, "//a[@data-value='nextPage' and text()='Next page']")
        driver.execute_script("arguments[0].click();", next_page_link)
        print(f"Switching to Page {page + 2}")
        time.sleep(6)
    except Exception as e:
        print(f"Error clicking Next page link: {e}")
        break
```

SciencesPo

1. Scraping EDGAR

```
# Switch to the iframe
try:
   iframe = driver.find element(By.ID, "ipreviewer") # Replace "ipreviewer" with the actual iframe ID
   driver.switch to.frame(iframe)
   print("Switched to iframe")
   # Extract the HTML content of the iframe
   iframe html = driver.page source
   # Use BeautifulSoup to parse the HTML content with case-insensitive search
   iframe_soup = BeautifulSoup(iframe_html, 'html.parser')
   # Define the regex pattern to find percentages based on specified phrases
    reqex_pattern = re.compile(r'\b((initial\s+(?:shareholder[s]*|Sponsors)\s*(?:\S\s*){0,70}(?:will\s+(?:collectively\s+)?(?:beneficially\s+)?own|will'
   # Use regex to find percentages in the iframe_text
   matches = regex_pattern.findall(str(iframe_soup))
    if matches:
       # Extract the percentage from the match
        percentage = matches[0][2]
        print(f"Found match: {percentage}")
       # Locate the phrase with the units and price per unit information
       text = iframe soup.get text()
        units pattern = re.compile(r'Securities\s+offered[^$]*?([\d,]+)\s*units[^$]*\$\s*([\d,.]+)\s*per\s*unit')
        units_match = units_pattern.search(text)
        if units match:
           units, price per unit = units match.groups()
           print(f"Units: {units}, Price per unit: {price_per_unit}")
           #html_content = '<span class="modal-file-name">S-1 (Registration statement) of filed (2021-02-26)</span>'
           text = iframe soup.get text()
           date_pattern = re.compile(r'on (\w+\s+\d{1,2},\s+\d{4})')
           date_match = date_pattern.search(text)
           if date_match:
                extracted_date = date_match.group(0)
                print(f"Extracted Date: {extracted_date}")
```

SciencesPo

3. Dataframe Construction

```
df = pd.DataFrame(results)
   if not df.empty:
       df['Date'] = pd.to_datetime(df['Date'])
       df = df.sort values(by='Date')
# Reordering columns and creating 'Date SPAC' column
       df = df[['Date', 'Percentage', 'Units', 'Price Per Unit']]
       df['Date SPAC'] = df['Date'].dt.strftime('%d/%m/%Y')
# Converting 'Units' and 'Price Per Unit' to numeric
       df['Units'] = pd.to_numeric(df['Units'].str.replace(',', ''), errors='coerce')
       df['Price Per Unit'] = pd.to_numeric(df['Price Per Unit'].str.replace(',', ''), errors='coerce')
# Calculating 'SPAC size' and cumulative 'Total SPAC amount' in millions
       df['SPAC size'] = (df['Units'] * df['Price Per Unit']) / 1000000
       df['Total SPAC amount'] = df['SPAC size'].cumsum()
# Adding an 'ID' column and calculating 'Nombre de SPAC'
       df['ID'] = 1
        for test_nbr, row in df.iterrows():
         SPAC = row["SPAC size"]
          if SPAC > 0:
              df.at[test_nbr, 'ID'] = 1
          else:
              df.at[test nbr, 'ID'] = 0
       df['Nombre de SPAC'] = df['ID'].cumsum()
        df['Mean SPAC size'] = df['Total SPAC amount'] / df['Nombre de SPAC']
        df['Mean SPAC size'] = df['Mean SPAC size'].round(1)
# Dropping the original 'Date' column
       df.drop(columns=['Date'], inplace=True)
# Reordering columns for the final output
       df = df[['Date SPAC', 'Percentage', 'SPAC size', 'Mean SPAC size']]
```



4. Data results



	Date SPAC	Percentage	SPAC size	Mean SPAC size
97	20/05/2019	20	300.0	300.0
102	18/10/2019	20	300.0	300.0
103	26/06/2020	20	200.0	266.7
104	14/08/2020	20	115.0	228.8
82	18/09/2020	20	350.0	253.0
63	12/09/2022	20	75.0	343.5
85	12/09/2022	20	75.0	340.9
100	03/07/2023	20	200.0	339.6
4	24/10/2023	20	75.0	337.2
0	06/12/2023	20	150.0	335.4

[109 rows x 4 columns]

Mean SPAC size: 419.10458715596326

Median SPAC size: 393.6

Standard Deviation of SPAC size: 88.99725483211297

