### Step 1: Install and Start Apache NiFi

1. Download and Install NiFi: Download the latest version of Apache NiFi from the [official website](https://nifi.apache.org/download.html).
2. Start NiFi: Follow the installation instructions and start the NiFi server. Typically, you can start NiFi by running the nifi.sh script in the bin directory (e.g., ./nifi.sh start).

### Step 2: Access NiFi User Interface

1. Open NiFi UI: Open a web browser and navigate to http://localhost:8080/nifi. This will open the NiFi user interface where you can create and manage data flows.

### Step 3: Create a Data Flow

1. Drag and Drop Processors: In the NiFi UI, drag and drop the required processors onto the canvas. For your use case, you will need at least the following processors:
   * ConsumeJMS: To read messages from ActiveMQ.
   * PutAzureEventHub (or the appropriate processor for your Event Hub): To send messages to the external Event Hub.
2. Configure the ConsumeJMS Processor:
   * Double-click on the ConsumeJMS processor to configure it.
   * Set the following properties:
     + JMS Connection Factory: Configure a JMS Connection Factory Controller Service to connect to your ActiveMQ instance.
     + Destination Name: Specify the queue or topic name in ActiveMQ where the market data is received.
     + Destination Type: Set to QUEUE or TOPIC based on your setup.
     + Client ID and Subscription Name: If using durable subscriptions.
3. Configure the JMS Connection Factory Controller Service:
   * Click on the "+" icon next to the JMS Connection Factory property.
   * Create a new JMSConnectionFactoryProvider and configure it with your ActiveMQ connection details (e.g., Broker URL, Username, Password).
4. Configure the PutAzureEventHub Processor:
   * Double-click on the PutAzureEventHub processor to configure it.
   * Set the following properties:
     + Event Hub Name: The name of your Event Hub.
     + Namespace: The namespace for your Event Hub.
     + SAS Policy Name: The name of the Shared Access Signature (SAS) policy.
     + SAS Policy Key: The key for the SAS policy.
     + Partition Key Field Name: Optionally, specify a field name for partitioning the data.
5. Connect Processors:
   * Connect the ConsumeJMS processor to the PutAzureEventHub processor by dragging a connection line between them. This will route the messages from ActiveMQ to the Event Hub.
6. Start the Data Flow:
   * Right-click on each processor and select Start to begin the data flow.
   * Monitor the data flow to ensure messages are being consumed from ActiveMQ and sent to the Event Hub.

### Step 4: Monitoring and Managing the Flow

* Monitor the Data Flow: Use the NiFi UI to monitor the flow files and ensure data is flowing smoothly. You can view metrics, logs, and data provenance to troubleshoot any issues.
* Scaling: If you encounter performance issues, you can scale NiFi by configuring more nodes in a NiFi cluster.

### Summary

By following these steps, you can use Apache NiFi to efficiently transfer high-volume market data from ActiveMQ to an external Event Hub. NiFi’s graphical interface makes it easy to set up and manage this data flow, ensuring reliable and scalable data processing.