自動做市商

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傳統形式的去中心化交易所需要買賣盤紀錄冊及配對引擎。自動做市商（AMM）兩者皆無須具備。自2018年起的主要例子Uniswap，在流動性池中持有成對代幣，並以公式設定兌換率；最簡單的版本是保持兩項儲備的乘積不變。[1]交易者如欲以USDC換取ETH，便將USDC發送至資金池，並按公式價格收取ETH；公式價格會按其交易規模成比例地向不利於她的方向移動。流動性提供者將兩種代幣存入資金池，換取LP代幣，並分享交易費用。

交易的對手方是誰？技術上是資金池。交易者與一份持有數以百計流動性提供者所存資產的智能合約訂約。流動性提供者並未同意與她交易，甚至可能不知道她的存在。協議的開發者編寫了程式碼，可能持有治理代幣，但並不持有資金池的資產。根據瑞士合約法，作者的分析是：交易者與資金池的互動是一項法律行為，其對手方必須是一個人。唯一可能的人選是全體流動性提供者。如將他們視為對手方，每宗交易便是一群匿名賣方出售代幣，而他們已授權合約按公式價格代其出售。只要願意將存入資金池視為授權，這便是根據《瑞士債務法》（OR/CO）第32條及其後條文有關代理的可行分析。[2]另一種說法是該交易屬沒有對手方的法律行為，但就價值轉移而言，瑞士法律無法接受這種分析。

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新加坡法律透過合約法及財產法遇到同樣的難題。交易者已轉出USDC並收取ETH。如不存在合約，這些轉讓便屬饋贈或錯誤付款，而這並非任何人的本意。新加坡法院至今只是附帶地處理過DeFi，即在資產追討案件中，被盜代幣在轉往交易所途中經過AMM；法院將AMM視為管道，而沒有分析合約上的地位。[3]

就監管而言，問題在於是否有人在營運交易場所或買賣數碼支付代幣（DPT）。聯邦委員會2022年的報告及新加坡金融管理局（MAS）的聲明均認為，協議本身並非受規管人士，但營運大部分用戶用以接入協議的前端網站的人，或對協議持有治理權力的人，則可能是受規管人士。下文將進一步闡述這個答案。

註釋

1. Hayden Adams、Noah Zinsmeister及Dan Robinson, Uniswap v2 Core，2020年3月（恒定乘積公式x·y = k），以及Uniswap v3 Core，2021年3月（集中流動性）。↩
2. Code of Obligations, SR 220第32至40條（代理）。對AMM交易的代理分析屬作者本人的觀點，尚未經瑞士法院驗證；第D部分第V章討論其他分析方法。↩
3. 參見CLM v CLN [2022] SGHC 46及第N部分第III章的追蹤分析；截至2026年6月30日，作者並不知悉有任何新加坡判決分析AMM交易的合約地位。↩

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