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Direct Investment Positions held by Captive Financial Institutions in Luxembourg affiliated to Investment Funds focusing on Private Equity or Real Estate

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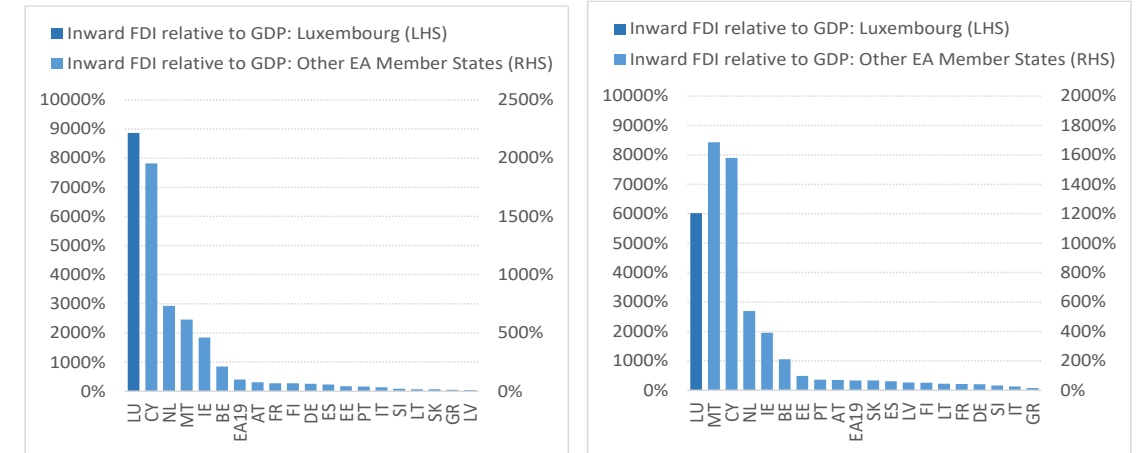
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1. Importance of inward/outward FDI positions held by CFIs in Luxembourg

Main observation Chart 1

- Luxembourg features the most important stocks of inward and outward FDI compared to the other EU countries
- Inward FDI \approx Outward FDI \Rightarrow essentially, **pass-through funds** (or **funds in transit**)

Chart 1: FDI-to-GDP across EA countries

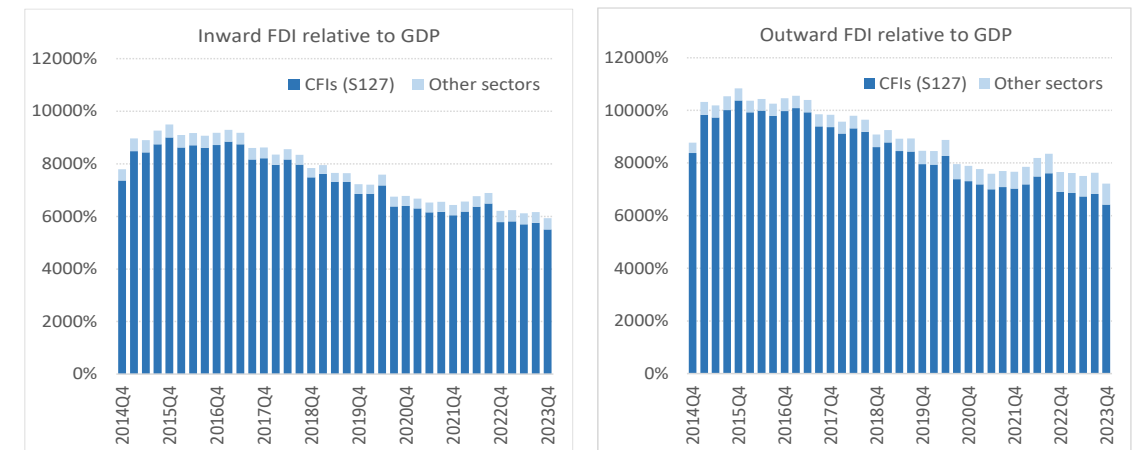


Source: ECB-SDW. Unit: Average 2008-2022

Main observation Chart 2

- CFIs (sector S127) as the main driver of inward/outward FDI stocks
- Across activities undertaken by transnational corporations, investment funds focused on private equity or real estate are the most important owners of CFIs

Chart 2: Sectoral decomposition of FDI in Luxembourg



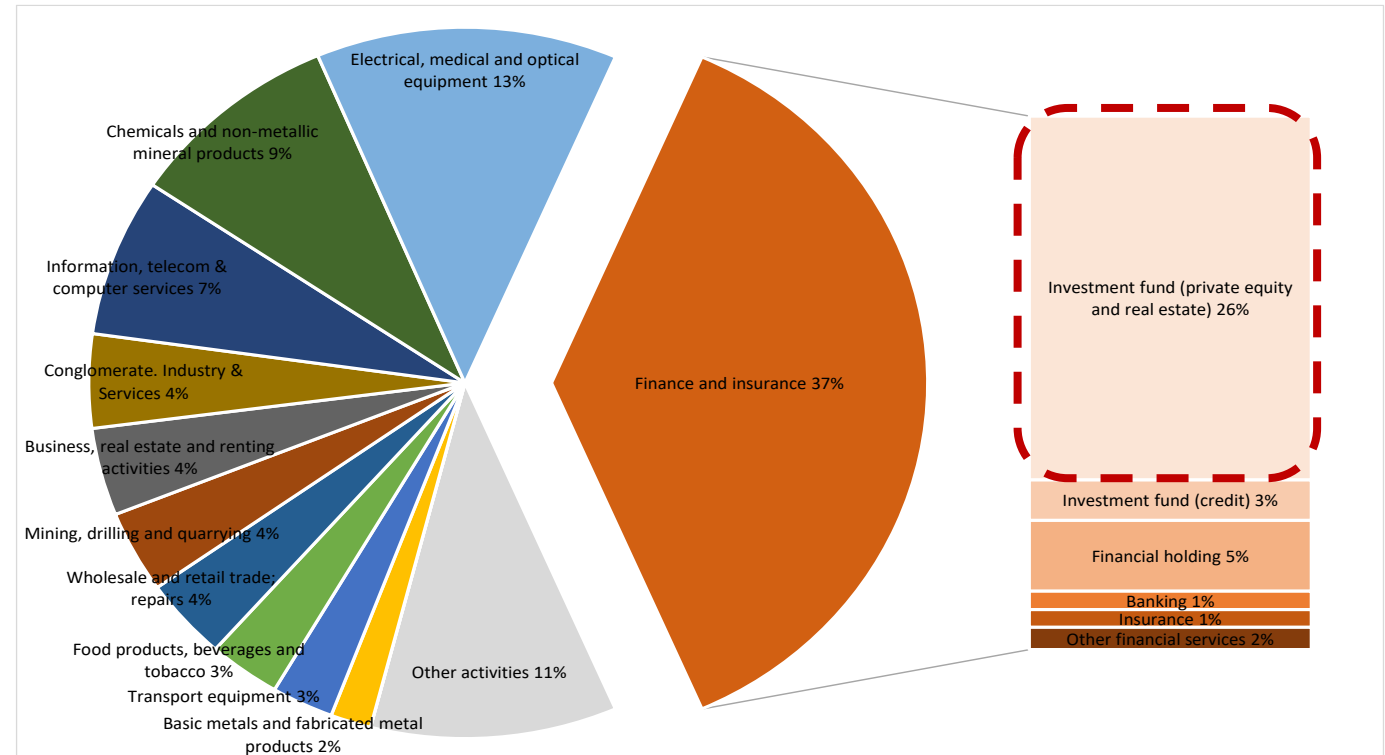
Source: BCL. Unit: Percent

2. Proportion of CFIs' total assets differs according to the activities of affiliated groups

Decomposition of CFIs' total assets by main economic activities performed by their respective affiliated group

- In 2021, total assets held by CFIs are mostly affiliated with groups active in:
 - “Finance and insurance” (37%)
 - “Electrical, medical and optical equipment” (13%)
 - “Chemicals and non-metallic mineral products” (9%)
 - “Information, telecom and computer services” (7%)
 - “Conglomerates. Industry and services” (4%)
 - “Business, real estate and renting activities” (4%)
 - “Mining, drilling and quarrying” (4%)
 - “Wholesale and retail trade; repairs” (4%),
 - “Food products, beverages and tobacco” (3%),
 - “Transport equipment” (3%),
 - “Basic metals and fabricated metal products” (2%).
- Together, these categories account for **about 90% of the total assets held by CFIs in Luxembourg**.

Chart 3: Total assets of CFIs by main economic activity of their parent group



Source: BCL, new database based on EGR-SBR-CBSR. Unit: Percent of total assets held by CFIs affiliated to a group in 2021

- Within the set of CFIs owned by **groups in “finance and insurance”**, **75% of CFI total assets** are owned by **investment funds** in 2021
- **About 90%** of these assets are owned by **investment funds focusing on private equity or real estate**
- The **remainder** is mostly owned by **credit investment funds (private debt)**

3. Structure

Objective

- Understand the **origin and destination of direct investment flows** passing-through Luxembourg
- Concentrate on CFIs affiliated to (resident and non-resident) **investment funds focusing on private equity or real estate** (most important owners of CFIs)

Input

- **Granular database** of direct investment positions initiated by fund sponsors focusing on private equity or real estate
 - **Ultimate controlling investor of CFIs (sponsors)** with their country of residence
 - **Intermediate entities (CFIs)** used by investment funds for their holding and acquisition structure
 - **Ultimate targets** broken down by business activities/property types and geographical location

Output

- **New distribution of direct investment positions** based on the sponsor and target counterparts as an alternative to the traditional immediate counterpart country
- **Decomposition** of investment positions by counterparts:
 - FDI positions (FDI_L, FDI_A)
 - Intra-Luxembourg positions (IL_L, IL_A)
 - Domestic direct investment positions (DDI_L, DDI_A)
 - External financing positions (L_OI_L, D_PI_L)

} Direct investment positions

Possible use

- Potential applications for **financial stability analyses**
 - **Interlinkages** between entities structuring the **financial chain** of investment funds
 - **Market impact assessment** of direct investments initiated by fund sponsors focusing on private equity or real estate
 - Identification of **investment cycle** amongst fund sponsors
- Potential applications for **monetary policy analyses**
 - **How monetary policy affects FDI initiated by sponsors?**

4. Stylised structure of a private equity investment fund

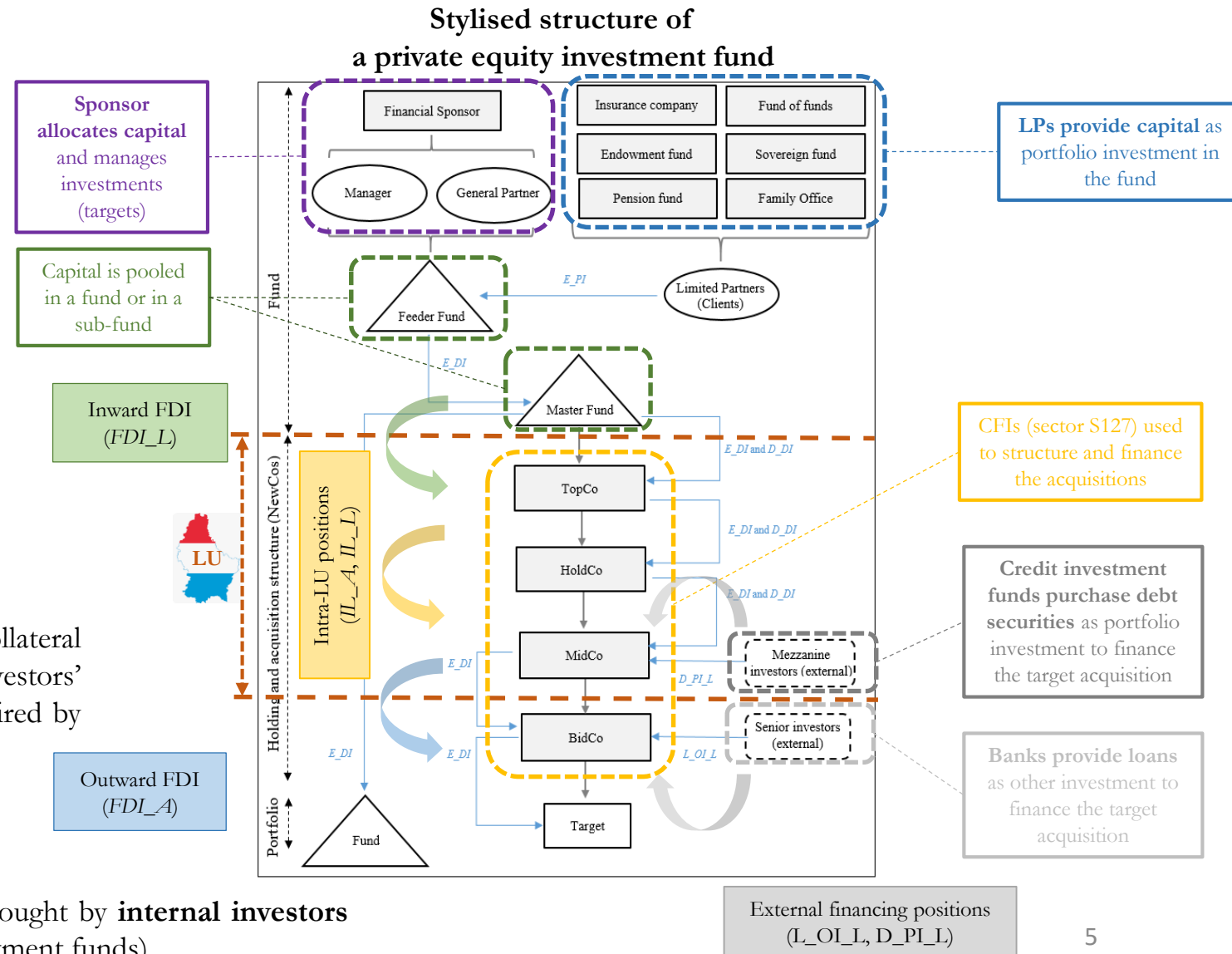
- Limited Partners (LPs) provide capital as portfolio investment in the fund
- Sponsors allocate capital and manage investments (targets)
- **Capital is pooled** in a **fund** or in a sub-fund (in case of a master-feeder arrangement).
- The **fund** can be **resident** in Luxembourg or **non-resident**
- In addition to equity financing, **sponsors** resort to **debt financing** to create a **financial leverage** in order to **increase investment returns**.
- Sponsors use **CFIs** to **structure and finance** their acquisitions.

Advantages of CFIs for sponsors

- Facilitate capital collection from investors (collateral requirements, capital allocation based on investors' preferences, gain more control in a specific target acquired by the fund)

Limits of CFIs for sponsors

- Cost: compliance issues, management cost



- => The structure comprises **different layers of financing** brought by **internal investors** (LPs, GP) and **external investors** (e.g. banks, private debt investment funds)

5. Decomposition of investment positions

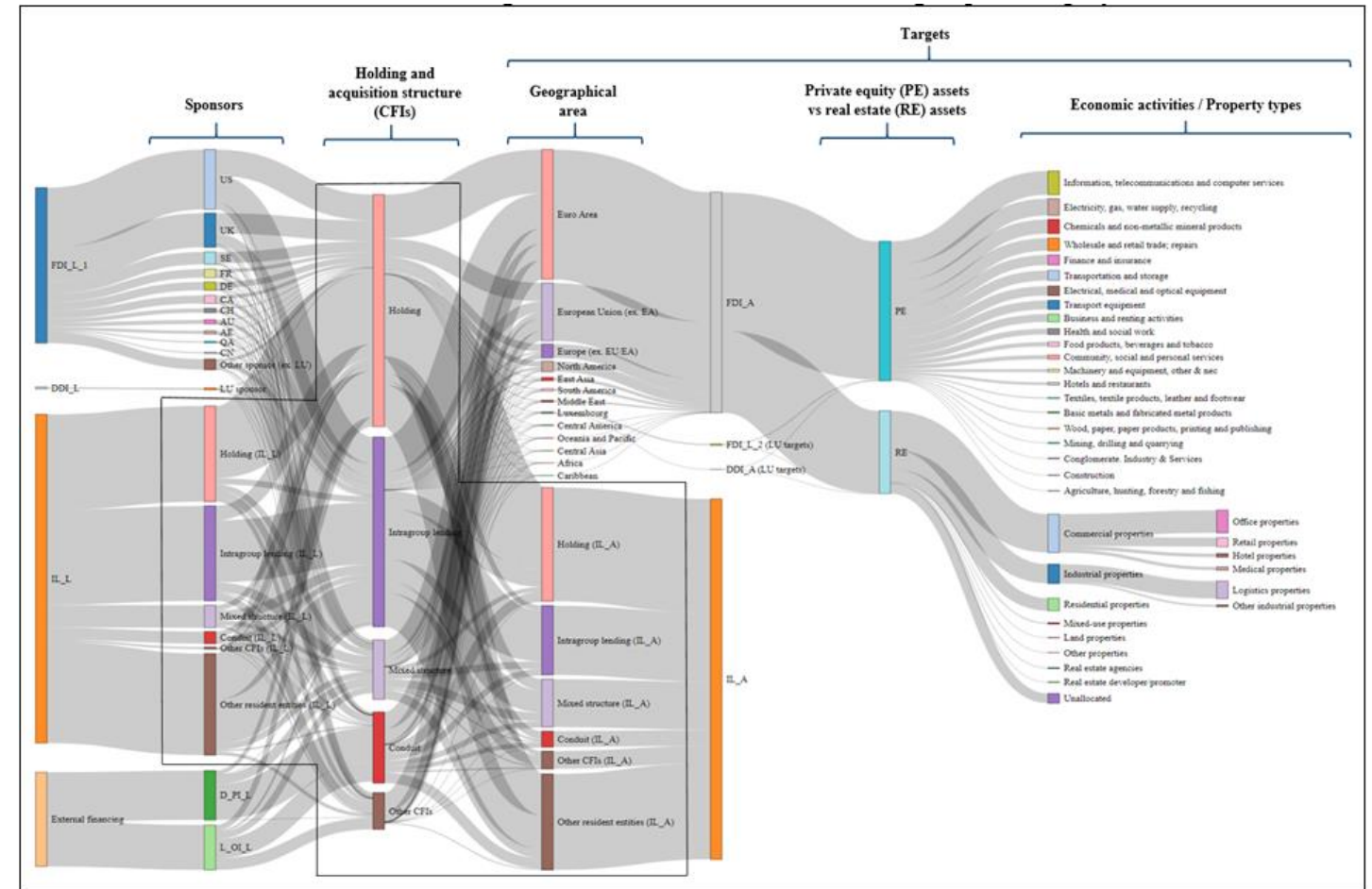
Liability-side

- Funds mostly sourced as FDI from non-resident sponsors (FDI_L1) and external financing (D_PL_L, L_OI_L)
- ... and to a lesser extent as domestic direct investment from resident sponsors (DDI_L)
- Most **sponsors** are headquartered in **US or UK**

Asset-side

- FDI_A finances the acquisition of **targets** mostly located in **Western Europe (especially the euro area)** and to a lesser extent in **North America (notably, the US)**
- **Direct investment in private equity** quite **dispersed across economic activities**
- **Direct investment in real estate** more **concentrated by property type**
- **Direct investments in targets located in Luxembourg** by resident sponsors (DDI_A) and non-resident sponsors (FDI_L2) account for a **small share of total direct investment by fund sponsors**.

Chart 4: Decomposition of investment positions



Unit: Percent of total investment position in 2021. NB: PE (RE) stands for private equity assets (real estate assets).

6. Decomposition of investment positions

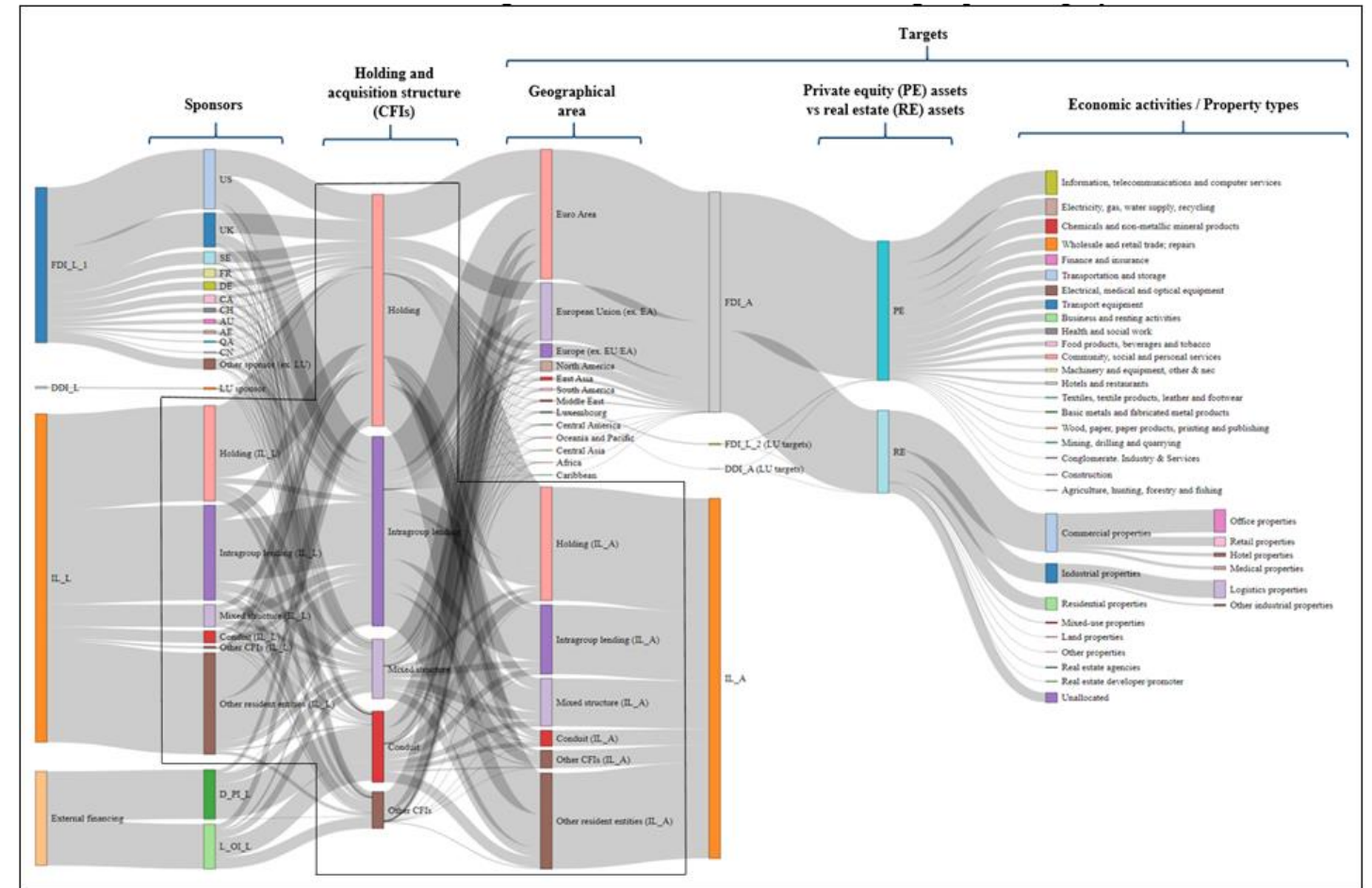
Intra-Luxembourg positions

- **Intra-Luxembourg investment** positions consist mostly of **resident CFIs** that form the holding and acquisition structure.

Interconnectedness

- CFIs owned by investment funds focused on private equity or real estate are mostly intertwined between each other
- Interlinkages with **banks** (financing via loans, L_OI_L)
- Interlinkages with **private debt investment funds** (financing *via* debt securities, D_PI_L)

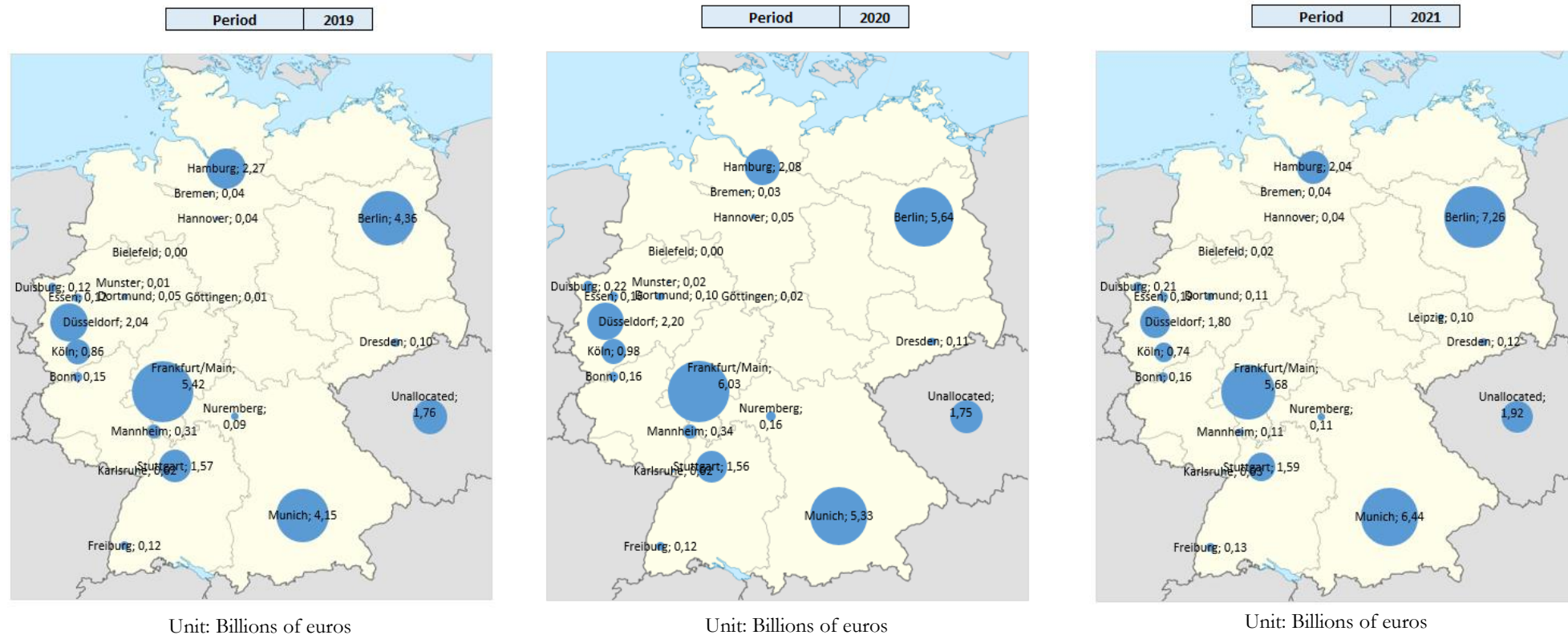
Chart 4: Decomposition of investment positions



Unit: Percent of total investment position in 2021. NB: PE (RE) stands for private equity assets (real estate assets).

7. Decomposition of outward FDI in real estate: Focus on office properties across cities in Germany

Chart 5: Decomposition of outward FDI position in real estate (FDI_A in RE)
Focus on office properties across cities in Germany (2019-2021)



- Outward FDI in real estate office properties (passing-through LU) dispersed across German cities
- Some cities (Frankfurt/Main, Munich, Berlin) attract more FDI in real estate office properties (passing-through LU) than others

8. Focus on Luxembourg



Main results

- Most FDI flows initiated by sponsors managing investment funds focusing on private equity or real estate **transit via Luxembourg to be invested abroad** ($FDI_L_2 \ll FDI_L_1$; $FDI_L_2 \ll (FDI_A \text{ in } PE + FDI_A \text{ in } RE)$), mostly in Western Europe (especially the euro area).
- Only a **minority of FDI flows** ($FDI_L_2 \ll FDI_L_1$) are ultimately **invested in targets located in Luxembourg** (less than 1% of the inward FDI position).
- Direct investment positions **in targets located in Luxembourg** mostly initiated by **non-resident sponsors** ($FDI_L_2 > DDI_A$)
- Private companies targets in Luxembourg operate mostly in **finance and insurance activities**.
- Real estate targets in Luxembourg are essentially **office properties**.

Chart 6: Decomposition of investment positions over time

