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NON-BANK FINANCIAL INTERMEDIATION IN MALTA – A FINANCIAL STABILITY PERSPECTIVE

BOX 4: NON-BANK FINANCIAL INTERMEDIATION (NBFI) IN MALTA – A FINANCIAL STABILITY PERSPECTIVE¹

Introduction

The global non-bank financial sector has grown considerably over the past years and has become an increasingly important alternative source of financing, both for firms and households. The Financial Stability Board (FSB) estimated that the financial assets of the global NBFI sector reached USD 200 trillion in 2019, accounting for nearly half of the global financial system, up from 42% in 2008.² In Malta, this sector grew by 47.2% since 2012 and accounted for almost 84% of the financial system in 2020.

The FSB defines NBFI as credit intermediation involving entities and activities fully or partially outside the regular banking system (FSB, 2011). It is a network of financial intermediaries that offer bank-related financial services such as investments, risk pooling and savings, and which are involved in maturity, credit, and liquidity transformation, and which help create leverage within the financial system. Such entities contribute in spurring economic growth by providing an alternative channel to funnel savings into profitable capital investments. At the same time, the presence of such entities creates competition in the financial sector that may lead to financial innovation, efficient credit allocation and cost reduction as they tend to unbundle their offers, and provide specialised services to specific target groups (World Bank, 2019; FSB, 2013). However, such flexibility and price competitiveness are partly also the result of less intrusive regulations when compared to banks, which leaves room for regulatory arbitrage. This forces policymakers into a difficult balancing act to try to maximise the benefits emanating from the sector while minimising the potential of systemic risks (Elliott et al., 2015).

The risks from bank-like activities came to the fore during the financial crisis, which was caused in part by the previously unsuspected fragility of a large network of non-bank financial activities (Elliott et al., 2015). Furthermore, this sector is continuously evolving as FinTech is disrupting the ecosystem and transforming traditional business models (Karagiannaki et al., 2017). These entities are, for example, offering direct lending through e-commerce partnerships as developments such as machine learning enables personalised offerings almost instantaneously. NBFI activity can, in turn, be intertwined with the operations of regulated institutions such as banks. In this regard, while financial interconnectedness can help diversify risk across financial sectors, it can also create a source of systemic risk (Adrian and Ashcraft, 2016). Interconnectedness has implications for financial stability through both the funding and credit risk channels, especially when these channels are associated with the build up of leverage and/or maturity mismatches (FSB, 2020). Furthermore, non-bank entities do not benefit from formal access to central bank liquidity or public sector credit guarantees, which means that the real economy could be severely impacted in cases of defaults, particularly of systematically-important entities (Pozsar et al., 2012).

The objective of this Box is to delve deeper into the extent of NBFI in Malta, by examining its footprint and growth over the past years, as well as assessing the risk profile of these entities through their involvement in credit intermediation, liquidity and/or maturity transformation, leveraging and their level of interconnectedness with the banking system. The analysis is initially based on the methodology adopted by the European Systemic Risk Board (ESRB) for the calculation of the NBFI perimeter, referred to as the broad measure. This indicator is then narrowed down in line with the FSB's methodology to capture those entities that act as credit intermediaries and which are therefore more susceptible to bank-like risks. This subset of entities is referred to as the narrow measure of NBFI.

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² [Global Monitoring Report on Non-Bank Financial Intermediation 2020 - Financial Stability Board \(fsb.org\)](https://www.fsb.org/2020/04/global-monitoring-report-on-non-bank-financial-intermediation-2020/)

Section 1 covers the NBFI perimeter explaining both the ESRB's and FSB's methodologies for the broad and narrow measures of NBFI, which are then applied to the Maltese financial system. Section 2 then assesses the risk profile of the entities within the narrow measure while Section 3 concludes.

1. The NBFI Perimeter

1.1 Methodology

According to the ESRB, the broad measure of NBFI captures the assets under management of all non-bank financial institutions except for insurance corporations and pension funds (ICPFs), as well as central counterparties (CCPs), as these entities are already subject to a strict regulatory framework (ESRB, 2020).

On the other hand, the FSB uses a two-stepped approach, by first *“casting the net wide to capture an aggregate measure of the financial assets of entities that engage in NBFI. Such non-bank financial intermediaries include insurance companies, pension funds, OFIs and financial auxiliaries. The second step narrows the focus to non-bank financial entities that are involved in credit intermediation and have increased potential for posing risks to financial stability through liquidity/maturity transformation, and/or leverage, resulting in the FSB’s narrow measure of NBFI”* (FSB 2020, p. 28).

The FSB's narrow measure distinguishes entities across five economic functions shown in Table 1. Entities whose business activity falls under at least one of these functions is captured in the narrow measure (FSB, 2013). Entities that are generally excluded from the FSB's narrow measure include ICPFs and bank-consolidated entities as they are already subject to strict regulation. Furthermore, equity and real estate funds, financial auxiliaries and captive financial institutions are also excluded on the basis of limited credit intermediation (see Figure 1).³ Closed-ended funds are generally excluded as they are not considered to be susceptible to runs in the same way as open-ended funds (FSB, 2020).⁴

Similar to the FSB's methodology, the Bank in its assessment of the NBFI sector starts by casting the net wide, looking at the overall assets of the financial system and excludes the assets of the banking sector to arrive at the (overall) NBFI sector. The first stage of the filtering process of NBFI entities then excludes ICPFs to arrive at the broad measure of NBFI, similar to the ESRB's methodology.⁵ This subset of entities is filtered again to arrive at the narrow measure of NBFI. While this measure will be similar to that conducted by the FSB, the entities are filtered according to type of entity rather

Table 1
FSB'S FIVE ECONOMIC FUNCTIONS

EF	Definition
EF1	Management of collective investment vehicles with features that make them susceptible to runs
EF2	Loan provision that is dependent on short-term funding
EF3	Intermediation of market activities that is dependent on short-term funding or on secured funding of client assets
EF4	Facilitation of credit creation
EF5	Securitisation-based credit intermediation and funding of financial entities

Source: FSB (2020).

³ Financial auxiliaries are corporations which are engaged in activities related to financial intermediation, but which are not financial intermediaries themselves.

⁴ To note that all these entities are 'generally' excluded from the FSB's narrow measure, as the different jurisdictions might still opt for the inclusion of (some of) these entities if they deem that they pose financial stability risks as a consequence of the activities undertaken.

⁵ CCPs are not being excluded as there are no such entities registered in Malta as at December 2020.

than zooming in on their specific economic functions. This is mainly due to insufficient data granularity, which impedes a complete assessment of the activities undertaken.

Thus, as shown in Figure 1, the perimeter of non-bank financial intermediaries in Malta includes:⁶

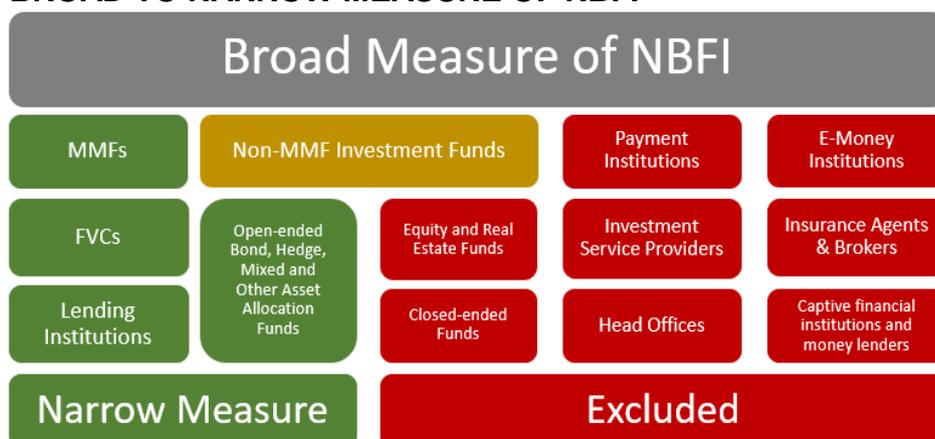
1. Entities included in the narrow measure:

- i. **Money Market Funds (MMFs) and Non-MMF Investment Funds (IFs):** MMFs typically invest in short-term instruments and are regarded as close substitutes to bank deposits yet providing a higher yield. In contrast, non-MMF IFs tend to have a longer holding period while investing in potentially less liquid assets in a bid to earn an investment return. These entities will be included in the narrow measure except for equity and real estate funds and other closed-ended funds since these are not considered to be as susceptible to runs as open-ended funds.
- ii. **Other Financial Intermediaries (OFIs):** corporations that are principally engaged in long-term financing but, unlike banks, do not incur liabilities in the form of currency or deposits. They also are not funded through investment fund shares, or in relation to insurance, pension and standardised guarantee schemes from institutional units. This sub-sector captures:
 - a. Financial Vehicle Corporations (FVCs): Institutions which carry out securitisation activities.
 - b. Lending Institutions: These institutions provide lending services, including personal credit, mortgages, factoring, and financing of commercial transactions including forfeiting.

2. Entities excluded from the narrow measure:

- iii. **Financial Auxiliaries:** corporations which are principally engaged in activities related to financial intermediation, but which are not financial intermediaries themselves. In Malta, this sub-sector includes Payment and Electronic Money Institutions, Investment Service Providers (ISPs), Head Offices, and Insurance Agents and Brokers.

**Figure 1
BROAD TO NARROW MEASURE OF NBFİ**



Source: Central Bank of Malta.

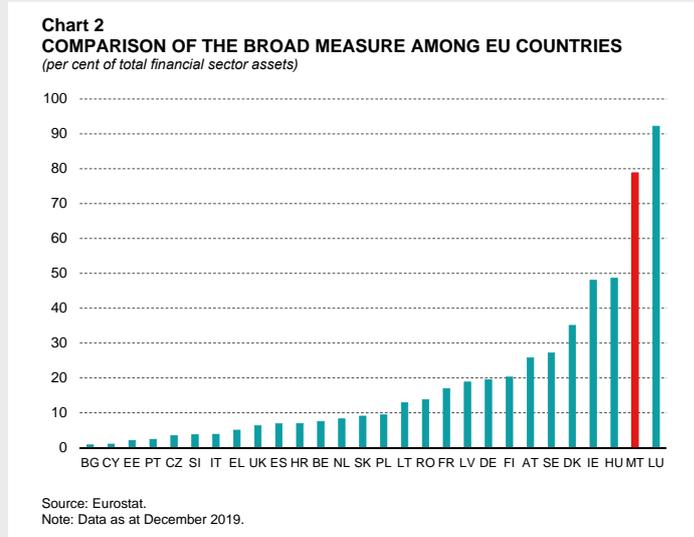
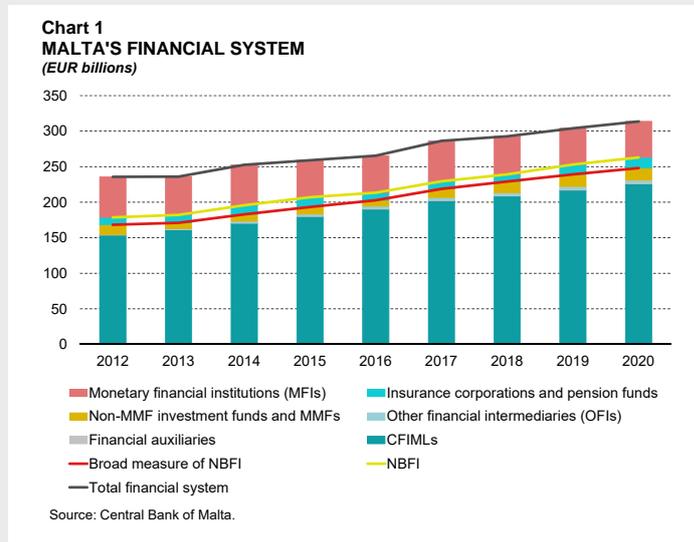
⁶ Classification based on European System of Accounts (ESA), (2010)

- iv. **Captive Financial Institutions and Money Lenders (CFIML):** includes those entities that hold controlling interests in groups of companies and set up with the intention of asset structuring and fund-raising purposes for their parent company with very little involvement in investing or borrowing with unrelated parties. Most of their assets or liabilities are not transacted on open markets.
- v. **Insurance Corporations:** corporations that are principally engaged in the pooling of risks mainly in the form of direct insurance or reinsurance.
- vi. **Pension Funds:** includes those entities that carry out social risk pooling and are engaged in the credit intermediation chain.

1.2 The NBFi perimeter in Malta

Since 2012, Malta's financial system grew by 33.1% to reach €313.6 billion in assets by the end of 2020 (see Chart 1). Most of the growth was driven by the non-bank financial sector as it grew by 47.2%, whereas the banking sector, excluding the central bank, declined by 24.3%. Indeed, during this period, the banking sector underwent a consolidation process, largely driven by some non-core and international banks, which surrendered their licence or downsized their operations. In this regard, the sector's assets declined from almost 725% of GDP in 2012 to around 315% by the end of 2020. Within the non-bank sector, the ICPF sector increased by 44.0% since 2012 to reach €15.0 billion by December 2020. Excluding these two sectors, results show that the broad measure of NBFi activity in Malta is relatively large with assets totaling around €248 billion. Since 2012 this sector expanded by 47.4%, but its rate of growth has been declining since 2018.

Upon comparison with other European countries, the broad measure of NBFi activity stood at 78.9% of the total financial sector's assets, second only to Luxembourg (see Chart 2).⁷ It is



⁷ The share of the Broad measure to the total financial system increased marginally to 79.1% during December 2020.

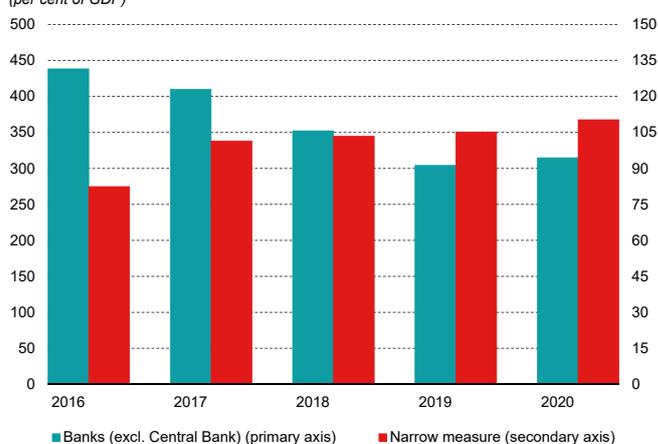
also relatively much higher than the third-placed Hungary at 48.6%. This is largely driven by CFIMs which make up 91.1% of the broad measure, and which surged by 47.0% since 2012 to stand at €225.9 billion in December 2020.

However, as defined by the narrow measure, the actual perimeter of institutions with the potential of propagating bank-like risks is much smaller, accounting for only 5.4% of all the NBFi perimeter in Malta as at the end of 2020. This is mainly because, in line with the FSB's methodology, CFIMs are generally excluded, as most of these entities are holding companies of larger groups, trusts and Special Purpose Entities (SPEs), servicing the group structure, and do not engage in credit intermediation. Moreover, their interconnectedness with banking groups does not appear to be a significant source of risk.

In contrast to the banking sector as outlined above, the narrow measure as a share of GDP increased from about 82% as at the end of 2016 to 110% by the end of 2020 (see Chart 3).⁸ As explained in Section 3 below, NBFi activity is an alternative source of finance to the banking sector, with a significant share of credit intermediation undertaken through the holdings of debt securities. In comparison to some other jurisdictions (both within and outside the EU), Malta's narrow measure of NBFi activity is comparatively low – the second lowest among the countries in Chart 4.⁹

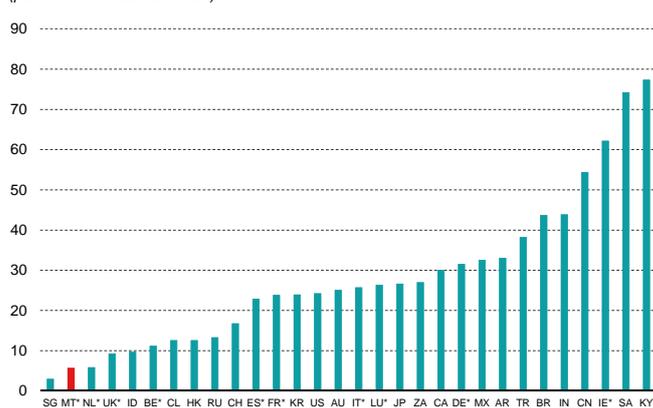
Available data shows that since 2016, the narrow measure was growing steadily, up by 62.8%, only to decline by 1.1% to €14.1 billion by the end of 2020 (see Chart 5). The drop occurred during the last quarter of the year as mixed funds sold a significant proportion of their equity holdings as equity prices recovered

Chart 3
TOTAL ASSETS OF NARROW MEASURE VS BANKING SECTOR
(per cent of GDP)



Sources: Central Bank of Malta; NSO.

Chart 4
NARROW MEASURE COMPARED TO OTHER JURISDICTIONS
(per cent of the NBFi Measure)



Sources: Central Bank of Malta for MT; FSB for the other jurisdictions.
Notes: EU Jurisdictions are shown with an *. Data as at December 2019.

⁸ Due to insufficient data granularity, data for the narrow measure is available from the end of 2016 onwards.

⁹ Important to note that whereas in other jurisdictions, the narrow measure is calculated using the activity-based approach described in the methodology, Malta's measure is calculated using an entity-based approach. Notwithstanding this, the conclusions being drawn would not change significantly – especially in light of the fact that CFIMs comprise a large share of the NBFi perimeter.

following several support measures by the Fed and central banks and the news on potential vaccines from pharmaceutical companies.

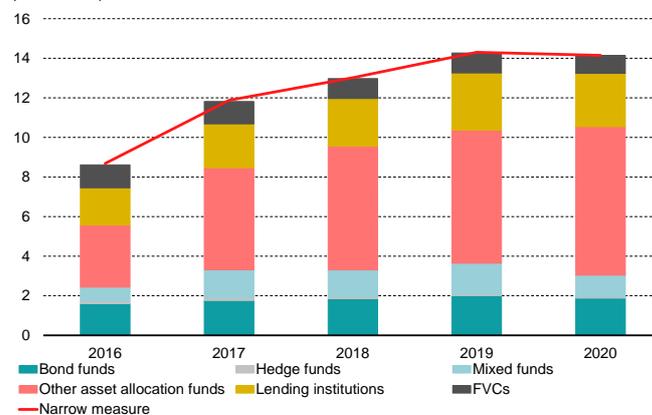
The narrow measure mainly consists of (open-ended) non-MMF investment funds and MMFs, whose share in the overall narrow measure went up from 65.0% during 2016 to 74.6% during 2020. It must be noted that these entities are already heavily regulated – such as under the Undertakings of the Collective Investment in Transferable Securities (UCITS) and Alternative Investment Funds Managers Directive (AIFMD) regulations. These entities are, in turn, mainly made up of other asset allocation funds, which represented more than half of the narrow measure seeing its share increasing by 17 percentage points.¹⁰ Such funds grew by 139.6% and 11.5% since 2016 and 2019, respectively, to €7.5 billion as at the end of 2020 (see Chart 6). In the case of open-ended bond and mixed funds, while these grew by 17.5% and 53.0%

since 2016, they declined by 6.2% and 29.6% since 2019 to €1.9 billion and €1.1 billion, respectively. In the case of bond funds, such a drop reflected lower bond holdings during the fourth quarter of 2020 in part due to the current market movements. Hedge funds, on the other hand, declined by 46.6% since 2016 to stand at €64.7 million during December 2020.

Apart from investment funds, the largest share within the narrow measure was represented by lending institutions, followed by FVCs. Assets of lending institutions increased by 43.0% over 2016 to €2.7 billion, while FVCs declined by 21.8% to €904.7 million. Both types of institutions experienced year-on-year declines during 2020, of 6.6% and 9.8%, respectively. This was mainly due to lower loans granted in the case of lending institutions, whereas in the case of FVCs they recorded a decline in the amount of securitised assets, presumably related to the pandemic as such entities could not benefit directly from government support schemes.

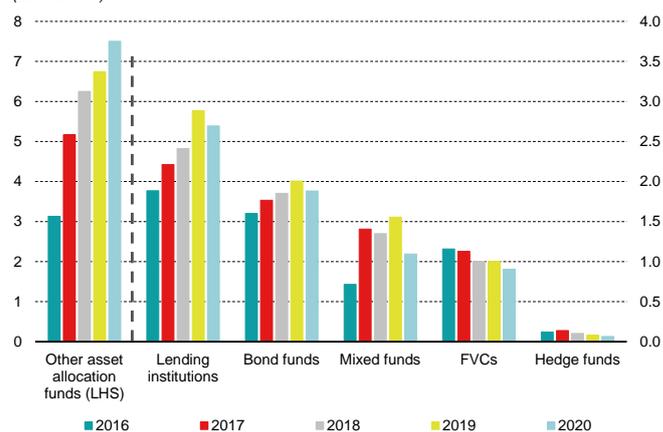
¹⁰ Funds are classified as other asset allocation funds if they cannot be classified as any of the other funds. For example, an investment fund investing in commodities is classified as 'other asset allocation fund'.

Chart 5
NARROW MEASURE COMPOSITION
(EUR billions)



Source: Central Bank of Malta data.
Note: MMFs are not included as they constituted a negligible proportion of the narrow measure. Furthermore there were no MMFs registered in Malta during December 2020.

Chart 6
DEVELOPMENTS IN THE NARROW MEASURE OF NBF1
(EUR billions)



Source: Central Bank of Malta.

The analysis presented in this section illustrated that although at the outset the NBFIs sector in Malta is large, this is mainly due to Malta becoming a European financial sector, which grew significantly since joining the EU in 2004. Malta established itself as a fund domicile and the NBFIs sector in Malta is mainly composed of entities involved in the funding optimisation of group structures that do not propagate bank-like risks. This results in a relatively smaller segment of entities, which can be deemed to be involved in bank-like activities and provide an alternative source of funding other than the banking sector.

2. Financial Stability Risks of NBFIs

2.1 Risk metrics

This section introduces an indicator-based framework largely based on the FSB's methodology. In this approach financial stability risk is assessed through risk metrics presented in Table 2 which are designed to capture the extent of credit intermediation, maturity and liquidity transformation, leverage, and the interconnectedness with the banking system.

Credit intermediation – Indicators CRE 1 and CRE 2 compare the amount of credit assets and loans in relation to total assets, respectively. This means that CRE 2 captures a subset of assets falling under CRE 1, which also incorporates debt securities. By construction, these metrics fall between 0 and 1, with values closer to 1 indicating a higher engagement in credit intermediation.

Maturity transformation – Positive maturity transformation occurs when a financial institution uses short-term liabilities to fund long-term assets. This could render such entities susceptible to runs if investors seek to withdraw their money. Indicator MAT 1 measures the portion of long-term assets that are funded by short-term liabilities (that is, not funded by equity or long-term liabilities), as a share of the total financial assets. In the case of investment funds, equity falls under short-term liabilities and is therefore not included in the numerator. The indicator ranges between -1 and +1, with 0 demonstrating no maturity transformation and positive (negative) values implying positive (negative) maturity transformation.

Table 2
RISK METRICS AND INDICATORS

Risk Metric	Indicator 1	Indicator 2
Credit Intermediation (CRE)	CRE 1	CRE 2
	Credit assets / Total financial assets	Loans / Total financial assets
Maturity Transformation (MAT)	MAT 1	MAT 2
	(Long-term assets - equity - long-term liabilities) / Total financial assets (Long-term assets - long-term liabilities) / Total financial assets**	Short-term liabilities / short-term assets
Liquidity Transformation (LIQ)	LIQ 1	LIQ 2
	(Total financial assets - liquid assets) / Total financial assets*	(Total financial assets - liquid assets + short-term liabilities) / Total financial assets
Leverage (LEV)	LEV 1	
	Total financial assets / equity AUM / NAV**	
Interconnectedness with the banking system (INT)	INT 1	INT 2
	Assets with credit institutions / Total financial assets	Liabilities with credit institutions / Total financial assets

Notes: Risk indicators as set out in FSB (2020), with the exception of the indicator marked in * which is taken from ESRB (2016). ** Risk indicators applicable to investment funds. Short-term assets and liabilities are deposits, loans and debt securities with original maturity less than one year, whereas long-term assets and liabilities are those with original maturity more than one year. In the case of FVCs, assets (and loans) include securitised assets (and loans). Equity holdings have been considered as short-term assets. Liquid assets include deposits, sovereign bonds, debt securities issued by MFIs and equity and investment fund shares.

Indicator MAT 2 reflects the share of short-term liabilities to short-term assets. A ratio of 1 indicates that short-term liabilities are covered with short-term assets, while values below 1 indicate negative maturity transformation. The higher the ratio rises above 1, the higher the dependence on short-term funding.

Liquidity transformation – Positive liquidity transformation refers to the use of liquid, short-term liabilities, to finance less liquid assets, which tend to be of longer term. This, as in the case of maturity transformation, could render non-bank entities susceptible to runs. In the event where parties providing the finance (savers or other lenders) seek to withdraw their money, such entities would need to sell off their illiquid assets to accommodate the demands of their investors, potentially resulting in a drop in asset prices and related market losses.

Ratio LIQ 1 measures the proportion of illiquid assets relative to total assets. A higher ratio indicates a higher proportion of illiquid assets, with a maximum score of 1 indicating that all assets are illiquid. However, to shed further insight into the extent of liquidity transformation, the analysis is complemented with indicator LIQ 2 which measures the amount of illiquid assets (total financial assets less liquid assets) and short-term liabilities as a proportion of total financial assets. A value of 1 would mean that no liquidity transformation is taking place, with short-term liabilities being equal to liquid assets, meaning that near-term demands on liquidity are supported by liquid assets. On the other hand, the closer the value is to 2, the higher the indication that assets are less liquid and that they are funded by short-term liabilities, thereby suggesting positive liquidity transformation. Conversely, the further the value is below 1, the higher the indication of negative liquidity transformation.

Leverage reflects the use of borrowed capital as a funding source when investing with the intention of expanding the firm's asset base and generating higher returns. However, the use of leverage could magnify the losses because if the investment goes contrary to expectations, the subsequent losses would be greater than they would have been otherwise. Metric LEV 1 compares the total assets relative to equity, or the assets under management (AUM) relative to the net asset value (NAV) in case of investment funds. The higher the value is above 1, the lower the level of equity relative to total assets, and hence the higher the leverage.

Interconnectedness with the banking system captures the extent of linkages between the non-bank entities and credit institutions that may be conduits for the transmission of financial distress. The first metric, INT 1, measures the assets side links with banks whereas INT 2 measures the links on the liabilities side. The higher the value as a proportion of total assets, the higher the extent of interconnectedness with the banking system.

2.2 Assessment of potential financial stability risks

This section discusses the developments in the various risk metrics discussed above, using annual data for the period December 2016 to December 2020. Results are summarised in Table 3.

Table 3
RISK METRICS

	Indicators/ Entity types	Open-ended investment funds					Other financial intermediaries		
		Aggregate IFs	Bond funds	Other asset allocation funds	Mixed funds	Hedge funds	Aggregate OFIs	Lending institutions	FVCs
Credit Intermediation	CRE 1	0.2 ▼	0.8 ▲	0.1 ▼	0.2 ▼	0.2 ▲	0.8 ▼	0.9 =	0.3 ▼
	CRE 2	0.0 =	0.0 =	0.0 =	0.0 =	0.0 =	0.7 ▼	0.9 =	0.1 ▼
Maturity Transformation	MAT 1	0.2 ▼	0.8 =	0.1 =	-0.1 ▼	0.4 ▲	0.6 ▼	0.5 ▲	-0.4 =
	MAT 2	1.3 ▼	5.2 ▲	1.1 ▼	0.9 ▼	1.9 ▲	1.9 ▼	2.8 =	0.1 ▲
Liquidity Transformation	LIQ 1	0.2 =	0.4 ▲	0.2 =	0.2 ▼	0.2 ▲	0.9 =	0.9 =	0.7 =
	LIQ 2	1.1 ▼	1.3 ▲	1.1 ▼	0.8 ▼	1.1 ▲	1.4 ▲	1.6 ▲	0.7 =
Leverage	LEV 1	1.2 ▲	1.2 ▼	1.2 ▲	1.6 ▲	1.1 ▼	3.2 ▲	4.1 ▲	2.0 ▲
Interconnectedness with the banking system	INT 1	0.1 ▼	0.2 ▼	0.1 =	0.1 ▼	0.2 ▼	0.4 ▲	0.5 ▲	0.1 ▲
	INT 2	0.1 =	0.2 ▲	0.1 ▼	0.1 ▲	0.3 ▲	0.6 ▲	0.7 ▲	0.1 ▲

Notes: All figures, including the aggregate columns, represent the weighted mean. Arrows indicate whether figures increased, decreased, or remained the same, from the end of 2016 to the end of 2020.

2.2.1 Open-ended investment funds

The significant growth of the asset management industry in recent years has raised concerns on its implications for financial stability, particularly because of the increase in debt funds and the changing financial landscape which has pushed fund managers to invest in less liquid assets for a higher return. Yet, liquidity transformation seems to be contained among investment funds, with a slight exception again being bond funds, which registered the highest values among investment funds. In fact, their holdings of illiquid assets grew from 33.8% of their portfolio in 2016 to 41.6% in 2020 in a bid to earn a higher yield. This meant the LIQ 1 ratio stood at 0.4, double the 0.2 reported among the other investment funds. The increase of illiquid assets also resulted in the LIQ 2 to be pushed upwards from 1.1 to 1.3 during the same period, indicating that bond funds tend to have the largest share of illiquid assets compared to their short-term liabilities.

Credit intermediation is limited and conducted solely through the use of debt securities as evidenced by CRE 2 which stood at 0. This is almost entirely driven by bond funds, which – in line with their business model – have approximately 77% of their balance sheet in the form of debt securities, resulting in their CRE 1 ratio reading 0.8, significantly higher than the 0.2 reported for the aggregate investment funds.

Across the investment funds assessed, maturity transformation is positive but limited as suggested by both MAT 1 and MAT 2 indicators, which on average stood at 0.2 and 1.3, respectively. It is, however, prevalent among bond funds as they typically hold long-term debt securities. This drives their MAT 1 ratio to 0.8. Subsequently, the low proportion of short-term assets among these funds resulted in the MAT 2 ratio standing at 5.2, significantly higher than the ratio at the aggregate level for investment funds. Although to a much lower extent, maturity transformation is also prevalent among hedge funds, which on average reported MAT 1 and MAT 2 readings of 0.4 and 1.9, respectively. This is driven by one hedge fund, which held almost 65% of its portfolio in long-term deposits with non-EU entities during December 2020.

Leverage among investment funds is limited, in large part because most of the domestic funds are regulated under the UCITS Directive which restricts borrowing for retail up to 10% of their assets on a temporary basis.¹¹ In the case of the Alternative Investment Funds (AIFs), asset managers have to set reasonable leverage limits, however, the competent national authorities can impose limits if deemed necessary for the stability and integrity of the financial system.¹² As measured by the total assets relative to the NAV, leverage is relatively higher than the average in the case of mixed funds, with LEV 1 reading 1.6. This, however, reflects the increased funding by one entity through deposits from non-monetary financial institutions (MFI), as otherwise the leverage ratio would stand at unity for the rest of these funds.

Interconnectedness with the banking system is also relatively low for investment funds, with the relevant ratios generally not exceeding 0.2 on both the asset and liability sides. A slight exception to this is the case of hedge funds as they register a slightly higher interconnectedness with the banking sector on the liability side with INT 2 standing at 0.3 as at the end of 2020, as banks are investing higher amounts in these types of investment funds.

2.2.2 Other financial intermediaries

All risk metrics suggest that OFIs have a higher probability of propagating bank-like risks than investment funds. These entities have a higher engagement in credit intermediation, which is mainly through the granting of loans by lending institutions, and securitised loans and debt holdings by

¹¹ Refer to article 83 of the UCITS Directive: <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:302:0032:0096:en:PDF>.

¹² Refer to article 25 of the AIFMD: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011L0061&from=EN>

FVCs. Lending indeed makes up 90% of the lending institutions' assets, translating into a CRE 1 value of 0.9, with no debt securities holdings, however, reported. In the case of FVCs, loans—including securitised loans – make up approximately 10% of their asset portfolio while holdings of debt securities make up slightly less than a quarter.

OFIs are also engaged in positive maturity transformation, with the values reading 0.6 and 1.9 for MAT 1 and MAT 2, respectively. However, these are solely being driven by lending institutions, which represent the bulk of OFIs, as otherwise FVCs engaged in negative maturity transformation. Results among lending institutions are, however, not heterogeneous, with the biggest entity in the sector driving the maturity transformation whose main source of funding consists of short-term loans from related credit institutions. Should this entity be excluded, the remaining lending institutions would record a negative maturity transformation on average, given that the remaining entities have proportionately a higher element of funding through equity (see Table 2). Overall FVCs' negative maturity transformation is being driven by the prevalence of long-term liabilities, namely the issuing of long-term debt securities, but also shareholders' funds (see Table 2), with such factors reducing both MAT 1 and MAT 2.

Similar conclusions can be put forward for liquidity transformation, as while at the aggregate level and among lending institutions, results suggest the existence of positive liquidity transformation, this is not prevalent across the board and is being driven by a large institution. In fact, removing this entity would result in a negative liquidity transformation. In the case of FVCs, the measure stood below unity at 0.7, same as the level in December 2016, as short-term liabilities are relatively low as highlighted in the case of maturity transformation.

Almost half of the FVCs' funding occurs through the issuance of debt securities and loans, which resulted in considerable leverage as shown by LEV 1 of 2.0 during 2020. The leverage of lending institutions is even higher at 4.1, but is again driven by the funding from a related credit institution by the same entity, as otherwise the ratio LEV 1 for these institutions would stand at 1.1.

The level of interconnectedness with the banking system among OFIs stands at 0.4 and 0.6 for assets and liabilities respectively. The significant funding from a related credit institution by the largest lending institution is indeed driving the links on the liabilities side for the lending institutions category, which stood at 0.7, as otherwise no liability links would be reported. However, the impact on assets links is much more contained, with around half of the assets of these institutions pertaining to credit institutions. In the case of FVC, both ratios are relatively low, standing at 0.1 both on the asset and liability sides, with the interconnectedness on the funding side being with foreign related credit institutions.

Conclusion

The analysis of the non-bank financial sector shows that the actual NBF activity in Malta, as defined by the narrow measure, is relatively small when compared to other jurisdictions. This is predominantly because of the presence of CFIML entities, as they make up 85.9% of all non-bank entities' assets, and whose function is generally limited to allowing for the pass through of capital within a group of companies, and are thus excluded from the narrow measure. This is similar to the experience of other countries such as Luxembourg, Ireland and Netherlands (ESRB, 2020). In fact, while the broad measure of the NBF activity as a share of the financial system's total assets stood at 79.1% during December 2020, this decreases to 4.5% based on the narrow measure. Furthermore, the narrow measure of NBF activity is dominated by investment funds, which are also strictly regulated and supervised.

The narrow measure of NBF activity had been on an increasing trend over the years as entities were increasingly recognised as an alternative source of finance. However, the onset of the COVID-19

pandemic generated some stress for these entities and the overall assets of this sector declined marginally, as non-bank entities could not access any government support measures directly. Investment funds also reported outflows or loss in the value of their investments, but no significant redemptions were reported. Notwithstanding, the overall impact of the pandemic in terms of risk metrics was contained, with no material changes in the risks posed by these institutions reported. Moreover, links with domestic banking entities, which remained the main players in the domestic credit market, are relatively low and observable only within a few institutions. The assessment of the potential financial stability risks among these entities within the narrow measure showed that credit intermediation is mainly undertaken by bond funds, FVCs and lending institutions. However, while in the case of bond funds this is predominantly undertaken through debt securities holdings, in the case of lending institutions this is conducted through the provision of loans. In the case of FVCs, credit intermediation is undertaken through securitised loans as well.

Indicators for maturity transformation suggested that this is undertaken predominantly by bond funds, and to some extent also by hedge funds and lending institutions. The latter sector is also engaged in positive liquidity transformation. However, in the case of hedge funds and lending institutions, results are being driven by the biggest entities within the respective sectors and such activities are not prevalent across the board.

When considering the extent of leverage undertaken, this is not common among investment funds owing to their business model with a slight exception when it comes to mixed funds as external funding from non-EU non-MFIs by one particular entity raised the aggregate measure. OFIs, on the other hand, are relatively more leveraged, with the indicator for lending institutions being driven by the largest institution through funding from a related credit institution.

Work is currently underway to establish a methodology to determine the domestically-relevant OFIs, which, together with the domestically-relevant investment funds, will enable the calculation of the domestically-relevant narrow measure. As outlined in Box 5, domestically-relevant investment funds are relatively few in relation to the whole population of entities, and this will reduce further the size of the narrow measure. These two approaches can in turn be combined together so as to focus on the domestically-relevant entities that potentially could pose risks to financial stability. Going forward, the framework will be developed further with the intention of focusing more on the riskier domestically-relevant entities and their impact on the local financial system.

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