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Why Life Insurers are Key to Economic Dynamism in Germany

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Why Life Insurers are Key to Economic Dynamism in Germany

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Abstract

Young entrepreneurial firms are of critical importance for innovation. But to bring their new ideas to the market, these startups depend on investors who understand and are willing to accept the risk associated with a new firm. Perhaps the key reason as to why the US has succeeded in producing nearly all the most successful new firms of the 21st century is the economy's ability to supply vast sums of capital to promising startups. The volume of venture capital (VC) invested in the US is more than 60 times that of Germany (OECD, 2017). In this policy note, we argue that differences in the regulatory and structural context of institutional investors, in particular life insurance companies, is a central driver of the relative lack of VC - and thereby successful startups - in Germany.

Background

Venture capitalists buy ownership stakes of highly risky young firms. This in turn provides the startup with the funds necessary to develop its product. It is not unusual for the majority of firms in a VC fund's portfolio to fail. To compensate for this risk and earn positive returns, venture capitalists need to earn exceptionally high returns on a small number of firms. In order to materialize these returns, the VC fund must be able to sell its ownership stake onto other investors. Venture capitalists typically exit by selling the startup to another firm or via an initial public offering (Initial Public Offering, IPO).

Importantly, an IPO allows for the possibility that the entrepreneur of the startup can maintain a controlling stake in the firm (Black, Gilson, 1998). Most entrepreneurs presumably place a high value on private control; otherwise, they would have chosen a more secure profession than pursuing a startup. However, for an IPO to be attractive, the stock market must value the firm's shares fairly. This requires both analysts and a large, liquid stock market.

However, for a rich country, Germany has a surprisingly underdeveloped stock market. The total market capitalization of listed firms in Germany is 44.5% of GDP, which is exceptionally low compared to other developed economies (see Figure 1). All things equal, a lower supply of equity capital means IPO valuations will be priced lower. This in turns means lower returns for venture capitalists and hence weaker incentives to invest in startups in the first place.

So why is there so little capital available for equity in Germany? At first glance it seems peculiar that a country whose savings rate amounts to 10.8% of GDP[1], over twice the EU average of 4.2%, would have so little capital available for productive equity investments.

Institutional investors and the role of insurance companies

We argue that the main barrier to a more developed equity market in Germany is a lack of equity investment from institutional investors. Institutional investors include pension funds, investment funds, and insurance companies. These institutions have liabilities with long time horizons, allowing them to hold assets over long periods and access illiquidity premia.

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1 See https://data.oecd.org/natincome/saving-rate.htm.

In the Anglosphere, the most important institutional investors are pension funds, whose assets are worth 144.6% and 105.1% of GDP in the US and UK, respectively. By contrast, German pension funds' assets amount to a paltry 6.9% of GDP. [2] Similarly, investment funds also play a limited role in German capital markets compared to the Anglosphere, with investment fund assets as a share of GDP being slightly more than half the level observed in the US.[3]

The goliath of German institutional investors are insurance corporations, with life insurance companies chief among them. Of OECD countries, only Luxembourg surpasses Germany in insurance assets as a share of GDP. Combined, German life insurance companies command an asset portfolio of over one trillion Euros. But only about 4.6% of German life insurers' investment portfolio is invested in equity. In contrast, for the EU as a whole, roughly 10.7% of life insurance investment assets are in equity. This figure reaches as high as 19.9% in the UK.[4]

Instead, German life insurers' portfolios are overwhelmingly concentrated in fixed income assets, such as government and corporate bonds. These assets have the advantage that they offer contractually fixed cash-flows and are highly liquid. Such features explain why regulators tend to view bonds favorably in assessing an insurer's ability to match its liabilities with assets.

However, life insurers hold assets against liabilities with maturities of multiple decades. Over such long horizons, diversified equity portfolios virtually always outperform bonds. This is especially true in a low interest rate environment. From the insurer's perspective, the attractiveness of an asset depends on both its expected return and its regulatory capital charge. An overly cautious capital charge could result in underrepresentation of equities in life insurers' portfolios relative to their risk-reward portfolio (Braun, Schmeiser, and Sierger, 2013).

With respect to solvency risk, a high share of bonds in a portfolio is not necessarily safer. The generally negative correlation between bond and stock returns would suggest that insurers should have exposure to both asset classes. If portfolio returns dip below the insurer's guaranteed return to customers, the insurer may risk insolvency as it depletes its capital. For an insurer with a portfolio consisting almost entirely of bonds, such a scenario could occur if interest rates are low for a long period of time, as they have been in recent years. Indeed, financial analysts and academic researchers have both identified German life insurers as being at a uniquely high risk of insolvency (Moodys, 2015; Kablau, Weiß, 2014).

Nevertheless, there is good news. German life insurers have been rebalancing their portfolios toward equities over every quarter for which the EIOPA reports comparable data, from 3.6% of assets in the fourth quarter of 2017 to 4.6% in the third quarter of 2019. While this may seem like a minor adjustment, it represents nearly 18 billion euros in new equity investment. Moreover, this trend appears likely to continue into the future: Allianz Lebensversicherung, Germany's largest life insurer, plans to increase equity as a share of its portfolio from 10% to around 16%.[5]

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[2] World Bank DataBank. Based on 2017 figures.
See https://databank.worldbank.org/reports.aspx?source=1250&series=GFDD.DI.13.

[3] OECD Institutional Investors Statistics. Based on 2017 figures. See https://read.oecd-ilibrary.org/finance-and-investment/oecd-institutional-investors-statistics-2018_instinv-2018-en#page14.

[4] Based on Q3-2019 values. Data from the European Insurance and Occupational Pensions Authority (EIOPA).

[5] See https://www.manager-magazin.de/finanzen/artikel/allianz-lebensversicherung-kauft-mehr-aktien-a-1227771.html.

Three developments may be driving this trend. Firstly, the low interest rate environment has provided impetus for German insurers to change their business model. German bunds alone make up 9.1% of German life insurers' portfolios.[6] Given the bund's low returns in recent years, many insurers struggle to meet the rates they have guaranteed their customers. However, this effect is presumably only temporary, as an increase in interest rates would increase the relative attractiveness of bonds.

The second possible explanation for the increase in equity holdings is the decline in the number of insurance companies as the market consolidates. Each individual asset on a balance sheet involves thorough quarterly reporting and disclosure to regulators. This fixed cost should make a diversified equity portfolio with shares from many different companies less attractive to small insurers compared to large insurers. As of 2016, Germany had 91 different life insurers, the highest number of life insurers in the EU and about 3 times the number in France. Today that number has declined to 76.[7]

The third and arguably more important change driving this trend is a complete overhaul of the policy regime governing life insurers. As of 2016, all EU life insurers are under Solvency II. This regime change freed German life insurance companies from crude quantitative limits on various asset classes and reduced capital requirements with regard to equity investments. In the past, only 1% of committed assets could be equity in an individual firm or private equity fund. The committed assets share of private equity could not exceed 10%, and combined investment in equity, subordinated bonds, and investment funds was limited to 35%. Moreover, Balleer and Wonke (2018) find that BaFin[8] stress tests under Solvency I demanded far greater capital requirements than under the Solvency II regime.

Now, along with the rest of Europe, German life insurers' assets are subject to risk-adjustments in determining their ability to cover liabilities with no quantitative limits on equity in principle. Further, insurers' diversification across different asset categories and liabilities is rewarded in calculating capital coverage. As time goes on and transitional exemptions from Solvency II expire, presumably German life insurers' equity holdings should converge to those of their European counterparts.

In 2019, the European Commission recently made several amendments to Solvency II, the EU's insurance supervisory regime, with the goal of incentivizing insurers to invest in equity.[9] One amendment eases the capital charges on diversified equity portfolios of medium-sized private European firms with sound financial indicators to treat such unlisted equity as receiving the same (lower) risk-adjustment as publicly-listed equity. Another amendment incentivizes longer holding periods of equity and venture capital firms. This amendment potentially brings down the capital charges of a 10-year holding of a privative equity stake by 55% and a listed equity stake by 44%. In other words, insurance companies who hold equity for long periods of time will be permitted to hold less capital.

The extent to which these amendments spur investment in equity remains to be seen, as they are only in force since the beginning of 2020. However, these changes to Solvency II are a welcome recognition of the importance of life insurance companies as key institutional investors in the EU.

[6] Based on Q3-2019 values. Data from EIOPA.

[7] Based on Q3-2019 values. Data from EIOPA.

[8] Federal Financial Supervisory Authority – BaFin, Bundesanstalt für Finanzdienstleistungsaufsicht.

[9] See https://ec.europa.eu/transparency/regdoc/rep/10102/2019/EN/SWD-2019-146-F1-EN-MAIN-PART-1.PDF.

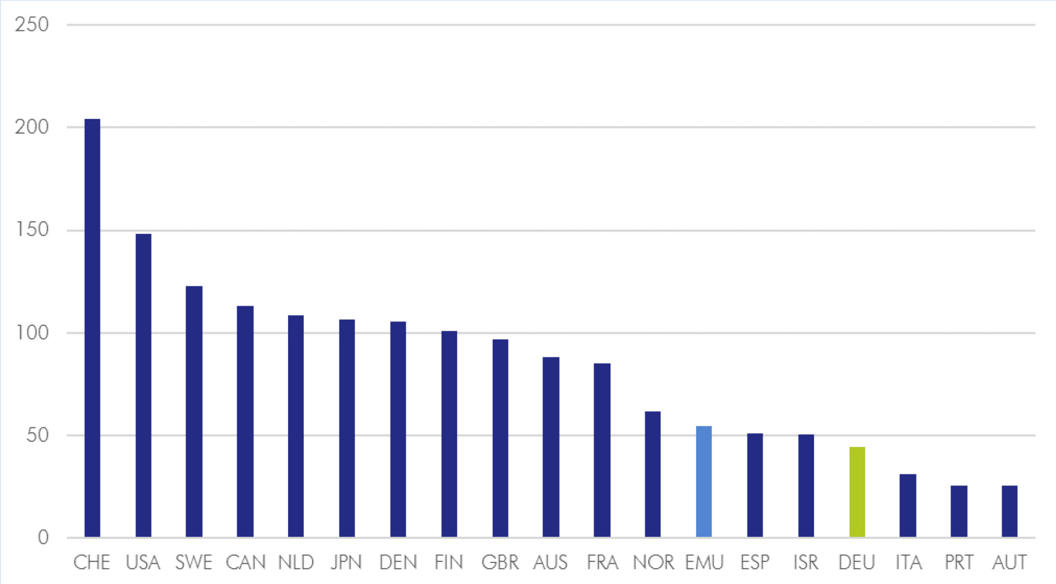
Finally, we believe further research should be conducted to better understand what prevents German life insurers from investing more in equity. Potential barriers may be related to market structure of the German life insurance industry. EIOPA statistics indicate that Germany has around twice the number of life insurers as comparable countries. This market structure may be indicative of inefficiencies and/or an inability of small insurers to cope with the regulatory disclosure requirements of equity investments.

Conclusion

Assets represent more than just the counterpart to a liability, but also capital to be used to fund innovation. Any regulatory regime should reflect this dual nature. In our view, rather than focusing on assisting startups directly via subsidies or other incentive schemes, policy makers would be best advised to push for reforms that create a financial environment that is amenable to funding innovative ideas.

Figure 1

Market Capitalization as a Share of GDP (%) by Country as of 2018

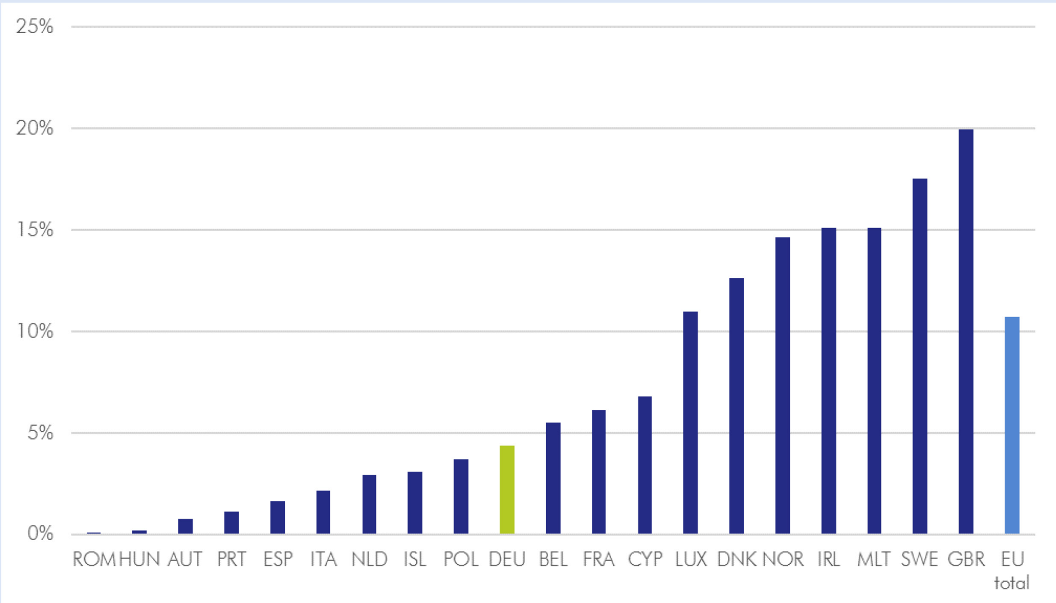


CHE = Switzerland USA =United States, SWE = Sweden, CAN = Canada NLD = Netherlands JPN = Japan, DNK = Denmark, FIN = Finland, GBR = United Kingdom, AUS = Australia, FRA = France, NOR = Norway, EMU = Economic and Monetary Union, ESP = Spain ISR = Israel, DEU = Germany, ITA = Italy PRT = Portugal, AUT = Austria

Source: World Bank Databank. Data for Netherlands, Italy, Finland, and Denmark from CEIC.

Figure 2

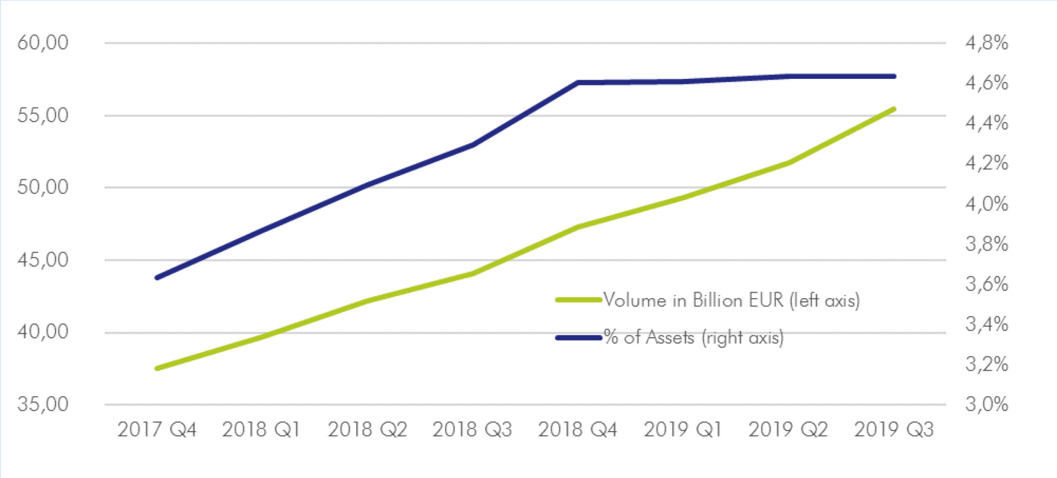
Equity Holding as a Share of Total Assets of Life Insurers by Country as of 2019-Q3



ROM = Romania, HUN = Hungary, AUT = Austria, PRT = Portugal, ESP = Spain, ITA = Italy, NLD = Netherlands, ISL = Iceland, POL = Poland, DEU = Germany, BEL = Belgium, FRA = France, CYP = Cyprus, LUX = Luxembourg, DNK = Denmark, NOR = Norway, IRL = Ireland, MLT = Malta, SWE = Sweden, GBR = United Kingdom

Source: EIOPA.

Figure 3
Equity Holdings as a Share of Total Assets and Volume of Equity Holdings (in Billion Euros)



Source: EIOPA.

References

Balleer, M.; Wontke, C.: Aktienanlage für Lebensversicherer unter Solvency II. Zeitschrift für die gesamte Versicherungswissenschaft, 107 (3), 2018, 259-272.

Black, B.; Gilson, R.: Venture Capital and the Structure of Capital Markets: Banks versus Stock Markets, in: Journal of Financial Economics, 47 (3), 1998, 243-277.

Braun, A.; Schmeiser, H.; Siegel, C.: The Impact of Private Equity on a Life Insurer's Capital Charges under Solvency II and the Swiss Solvency Test, in: Journal of Risk and Insurance, 81 (1), 2014, 113-158.

Kablau, A.; Weiß, M.: How is the Low-interest-rate Environment Affecting the Solvency of German Life Insurers?, 2014.

Moodys: Low Interest Rates are Credit Negative for Insurers Globally, but Risks Vary by Country. Moody's Investor Service, 2015. See http://www.actuarialpost.co.uk/downloads/cat_1/Moodys%20 Report%202015.pdf, Zugriff am 17.03.2020.

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