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Competition and efficiency in the Dutch life insurance industry

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Abstra

The lack petition an
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compari bmarkets

should reveal where policy measures in order to promote competition might be appropriate.

†The views expressed in this article are personal and do not necessarily reflect those of CPB or DNB

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Notes

†The vie ect those of CPB or D

[1]In term 40% above the Euro

[2]For

[3]For life ountries see many bu annuitizing.

[4]In the M n Anglo-Saxon co

[5]A typical endowment insurance policy pays a given amount at a given date if a given person is still alive, or earlier when he or she passes away. Of course, there are many variants to these archetypes.

[6]The fiscal regime change might cause a structural break. However, re-estimation of our model for two sub-periods, before and after the change, did not give different results.

[7]For a fuller discussion we refer to CPB (2005). See also Kamerschen (2004).

[8]For a detailed analysis of the various effects we refer to CPB (2003).

[9]Concentration ratios are discussed in Bikker and Haaf (2002). where s_i represents the market share of firm i.

[10]In 1996, Japanese entrance increased sharply due to a structural change.

[11]Acquisition costs are marketing costs and sales costs, which include commissions to insurance agents.

[12]Incidentally, a new Dutch Financial Services Act (Wet Financiële Dienstverlening) has come into force at the begin of 2006, pressing for more transparency in this market, which may also work to improve competition in this submarket.

[13]See Co ide), Septemb

[14]This in hat further consolid nange when new ent r growth path.

[15]No uation 3, see, for

[16]The fir posed by Aigner e Lovell (1979) p

[17]This ex which can be calculated from expectations of u_{it} , conditional upon the observed values of v_{it} and

u_{it} , (Battese and Coelli, 1992, 1993, 1995).

[18]Note that the $E(c_{it} | u_{it}, X)$ differs from actual costs, c_{it} , due to v_{it} .

[19]An alternative definition would be the inverse of EFF_{it} , $INEFF_{it} = \exp(u_{it})$, which is bounded between 1 and ∞.

[20]See Boone and Weigand in CPB (2000) and Boone (2001, 2004).

[21]More competition can force firms to consolidate (see our scale economies discussion). Claessens and Laeven (2004) found in a world wide study on banking that concentration was positively instead of negatively related to competition.

[22]Suppose that the negative profit firms are price fighters. In a well-functioning market the price fighters will-influence profitability of the other firms.

[23]Some insurance firms can approximate their value added by comparing their embedded value over time. These data are not publicly available.

[24]The definition of production of life insurance firms is discussed further in subsection 'cost X-inefficiency'.

[25]The price of management, or wages, has been excluded by applying the two standard properties of cost functions, namely linear homogeneity in the input prices and cost exhausti

[26]Of cou ation lies far out of ou

[27]This fi ues of the numeric naximizes the deg

[28]This utput price and mc_i

[29]ISIS da res would be more

[30]For ins than those in other

[31]A similar picture emerges from figures of CEDA (2004), p. 198.

[32]This lagging adjustment of profitability does not disturb the international comparison, as this limitation holds also for the foreign data.

[33]Note that the variable cost may change over the size classes due to scale efficiency (just as the marginal cost may do), so that the average variable cost may differ from the marginal cost. Apart from this theoretical dissimilarity, these variables are also measured differently in practice.

[34]We have also estimated random effect models for profits (Table 8) and markets shares (Table 9). Their coefficients were quite similar to those of the fixed effect models, with even slightly higher values and higher levels of significance. This suggests that the estimates presented in Tables 8 and 9 are quite robust. We tested for random effect using the Hausman test, but this test appeared to be undefined, suffering from the 'small sample problem'. All models include year dummies, also not shown in the tables.

[35]The value of the Boone-indicator in these estimations is around −0.85. Results can be obtained from the authors.

[36]The elasticity of this variable is the coefficient (0.45) times the average of the unit-linked fu ratio (0.33; see Table 2), so 0.15.

[37]In the ble costs (namely ppendix 2.

[38]The el 7 + 0.01 × 2 × ave ues it is equal to + (0.24

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