West German households' acquisition of financial assets and capital formation over the past 20 years

In spite of the severe property losses they incurred as a result of the Second World War and its consequences, west German households today, all in all, again hold assets which are significant even by international standards. The basis therefor was created by the strong expansion of private saving which accompanied the economic upswing after the war; measured in terms of income, it rose steadily up to the beginning of the seventies and has since then remained more or less at that level. Households consequently became a buttress of asset accumulation in western Germany. Over the past 20 years they accounted for about two-thirds of total saving of all domestic sectors, and thus financed a major proportion of the overall economic assets generated, which are an indispensable prerequisite for the growth of employment and income. Continuing along this road would also contribute significantly to the solution of the economic problems currently confronting Germany in the wake of unification. This applies all the more as, owing to their high unification-induced deficits, the west German public authorities draw extensively on private savings, so as to enable them to support and socially cushion the transformation of the desolate socialist command economy into a viable market economy system by means of transfer payments, which totalled 5½% of the nominal gross national product in western Germany last year.

The trend in private saving over the past 20 years and the volume of the assets acquired in this way is described in the following sections. The traditional point of view, which has so far placed financial asset acquisition in the foreground, is supplemented by the private acquisition of housing property in Germany and its financing. Both processes are not only integral components of private saving and borrowing behaviour but are also based on the use of resources and funds by households, which are attributed to the housing sector in the traditional perspective. The present article continues where a similar study, which was published in the Monthly Report some five years ago, left off.[1]

Private acquisition of financial assets and incurrence of liabilities for consumption purposes

By tradition, households[2] invest their savings predominantly in *financial assets*. On account of the manifold possibilities for diversification available in this field, the acquisition of such assets meets the population's different saving objectives and motives.

1 "Private non-financial and financial asset acquisition and its financing" in Monthly Report of the Deutsche Bundesbank, Vol. 39, No. 8, August 1987, page 38 ff.
2 Included are not only employee households and those of non-active persons but also the households of self-employed persons insofar as their private consumption and saving are concerned.

Saving serves, on the one hand, to provide for unexpected risks and, on the other, to satisfy certain consumption needs or to form capital. In the last few years long-term provisions for old-age through the acquisition of financial assets have probably gained increasing importance. On average in 1990-1, west German households acquired new financial assets totalling an estimated DM 210 billion, so that the volume of such investments has risen to three and a half times the level at the beginning of the seventies. Over the long run, the expansion was thus more or less in line with the growth of incomes, the most important determinant of private saving. Accordingly, financial asset acquisition – viewed in terms of income – at 13½%, was virtually as high at the end of the period under review as at the beginning of that period. This was probably due not least to the relatively high degree of price stability in the eighties, which left the value of savings largely unaffected.

Over the short term, however, financial asset acquisition, too, was subject to very sharp fluctuations due in part to unexpected surges in income. Households did not, for instance, initially respond to the strong growth of real incomes caused by the significant decline in oil prices in 1986 by raising their spending on consumption to a corresponding degree, but rather by increasing their financial asset acquisition. The same holds true of the income increments resulting from the 1986-90 tax reforms, the last stage of which alone brought relief in the order of 2% of disposable income. It is probably due not least to precautionary provisions that a clouding of economic prospects and the associated risks to employment – for example, in the recession in the mid-seventies – initially always goes hand in hand with a relatively marked expansion of financial assets. On the other hand, increased burdens as a result of the surge in oil prices at the beginning of the eighties led to a temporary decline in the private saving ratio; this also came to light in the middle of 1991 when the increase in indirect taxes and the temporary levying of the solidarity surcharge reduced households' purchasing power.

Households' acquisition of financial assets and incurrence of liabilities for consumption purposes *

Annual average	Financial asset acquisition: Total	of which: Funds placed with banks 1	of which: Funds placed with insurance enterprises 2	of which: Funds placed in bonds	Incurrence of liabilities for consumption purposes
	DM billion				
1970–4	73.6	40.9	14.2	9.4	5.7
1975–9	105.6	55.5	24.6	14.8	15.4
1980–4	122.1	48.2	38.8	26.1	10.5
1985–9	146.0	53.7	50.2	33.3	13.7
1990–1	211.9	63.8	55.5	78.5	28.4
	as % of disposable income				
1970–4	13.8	7.7	2.7	1.8	1.1
1975–9	13.6	7.1	3.2	1.9	2.0
1980–4	11.7	4.6	3.7	2.5	1.0
1985–9	11.5	4.2	4.0	2.6	1.1
1990–1	13.6	4.1	3.6	5.0	1.8

* Including private non-profit organisations. — 1 Excluding bank bonds. — 2 Primarily with life insurance enterprises and pension funds as well as claims under company pension commitments. Discrepancies in the totals are due to rounding. BBk

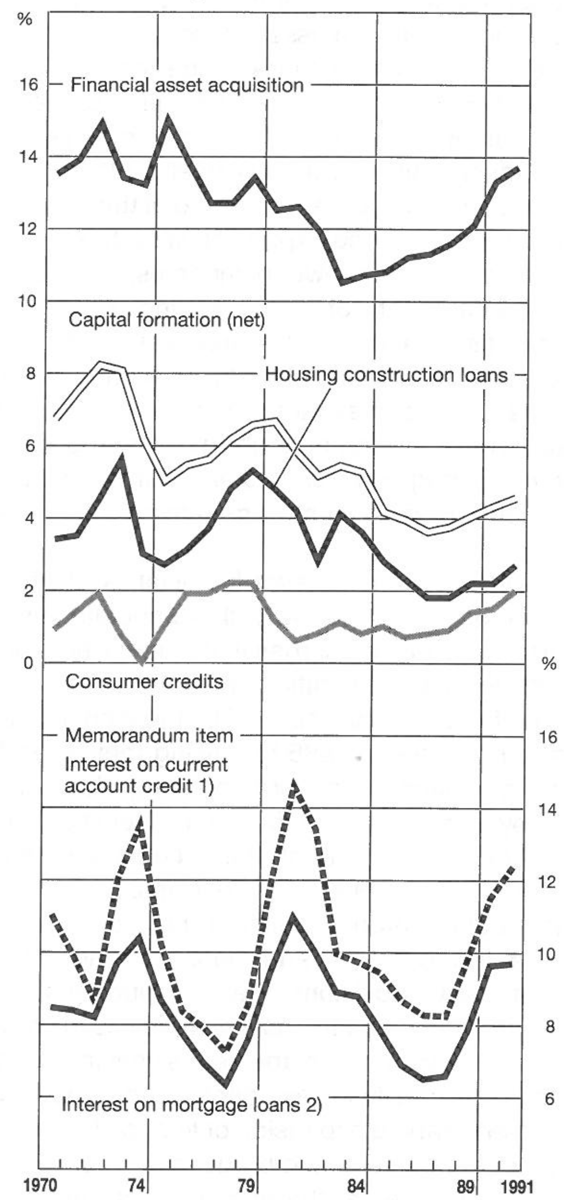
Where the *investment behaviour* of the west German population is concerned, the past 20 years saw a clear shift in preferences towards a more marked orientation to yields. Two factors probably play a major role in this respect. On the one hand, the private financial assets accumulated per household, predominantly since the end of the Second World War, had reached an order of magnitude at the beginning of the period under review that could be regarded as the threshold to a transition from "saving for emergencies" to precautionary saving geared more strongly to yields. On the other hand, the experience gained with the significant inflationary erosion of financial assets in the early seventies gave ground to offset this at least to some degree by choosing higher-interest investment possibilities. Together, these two factors led to a greater diversification of private financial assets to the detriment of traditional bank saving, even though the banks attempted with a whole range of new investment opportunities to keep the loss of clients within limits.

On average in 1990-1, households held only just under one-third of their monetary savings in non-fungible form at banks, as against more than half at the beginning of the seventies. But there have also been significant shifts within the financial assets held at banks in the course of time, shifts which have recently been exacerbated on account of the relatively high yields at the short end of the credit markets. At the moment, for instance, exceptionally high inflows into short-term time accounts stand in the foreground; such deposits alone accounted for just under one-fifth of total private financial asset acquisition in the last two years. This share was more than twice the average recorded in 1970-4 when households had first "discovered" the possibility of investing in time deposits. Various special forms of saving with attractive interest rates and predominantly short maturities are likewise in good demand. Inpayments into traditional savings accounts, by contrast, which had still absorbed a good third of private financial assets 20 years ago, have recently even reversed into net outflows. The acquisition of bank savings bonds, too, has declined in importance. In addition, the downturn in new business at the beginning of the eighties and the drop in new construction activity caused saving with building and loan associations to contract likewise, although there were signs of a recovery in this field at the end of the period under review.

What came to the fore over the long run, by contrast, was the acquisition of bonds and units of bond-based funds. In 1990-1 households invested roughly more than one-third of their newly acquired financial assets in such paper, and thus three times as much as at the beginning of the seventies. Viewed over the longer term, public sector debt policy, which is being tailored more and more to meet also the interests of private investors, and the in some cases higher yields abroad caused private portfolios of public and foreign bonds to be raised far more than those of bank bonds. The accumulation of private funds with banks has therefore lost considerable weight over the past 20 years, even if bank bonds are included. What expanded significantly, in addition to the acquisition of bonds, was the investment of funds with insurance enterprises, although inpayments here have for some time now been opposed by considerably rising outflows as a result of the maturing of policies dating back to the fifties.

The high level of saving and the sustained turn of households to assets with more attractive interest rates have caused the corresponding yields on financial assets to rise exceptionally strongly in the long run. On average in 1990-1, they totalled an estimated DM 150 billion, so that they were a good seven times higher than 20 years ago. The role played by interest and dividend income in households' budgets has thus gained considerable weight since 1970. The marked growth of the yields on financial assets at the same time also contributed significantly to saving, because a major proportion of this income is probably reinvested, either on institutional grounds or in line with the business situation and interest rate level at the time – particularly as many of those who have investment income

Households' asset accumulation and incurrence of liabilities *



* As % of disposable income.- 1) On current account credits of less than DM 1 million.- 2) On mortgage loans secured by residential real estate at fixed interest rates for five years. BBk

receipts normally also have above-average incomes. In 1990-1 the yield on earning financial assets amounted to an estimated 6% p.a., about 1 percentage point of which was due solely to shifts in the pattern of investments over the past 20 years.

The extent to which financial asset acquisition contributes to the domestic supply of savings is reduced by the fact that households – viewed in macroeconomic terms – use savings not only to finance construction but also in the form of *consumer credit.* In contrast to their saving, which is determined primarily by their income, west German households' propensity to incur debt depends largely on the level of interest rates on consumer credit (see the chart on page 16). In Germany, however, the incurrence of liabilities for consumption purposes continues to play a less significant role than in other industrial countries; this is indicated, for instance, by the relatively low ratio between private net borrowing and disposable income, a ratio which, at just under 2% in 1990-1, was nevertheless perceptibly higher than in the eighties or at the beginning of the seventies. In contrast to the longer-term trend, new borrowing for consumption purposes has expanded strongly since 1989, despite rising interest rates. This may be due less to a greater hardiness of consumers vis-à-vis interest rates than to not least unusually strong immigration.

Private capital formation and its financing

Apart from the acquisition of financial assets, which plays a dominant role, households also give relatively great weight to the *acquisition of housing property* in their investment decisions. The need to provide for one's family and old age, in particular, is often associated with the wish for "a home of one's own". In Germany the fulfilment of this desire is supported, in addition, by the government in various ways. The great importance attached to investment in residential buildings or owner-occupied apartments (including the alteration and modernisation of existing buildings, but after deduction of expenditure on the maintenance of the existing stock of dwellings), either for their own use or – in part – for letting, in households' investment considerations is indicated by the volume of the funds spent on this purpose.[3] On average in 1990-1, they totalled an estimated DM 71 billion, which did not, however, stem solely from current savings but also from the incurrence of liabilities. This amount corresponded to roughly 4½% of households' disposable income.

Private capital formation (as defined above) has likewise expanded considerably over the past 20 years, albeit not as markedly as the acquisition of financial assets. However, the growth merely mirrors the significant hikes in prices of construction work and land, which have risen by 250% since 1970, all in all, and have thus absorbed the additional capital expenditure in full. For private owners of housing, this went hand in hand with a marked appreciation

Households' capital formation and its financing *

Annual average	Net capital formation 1	Financing			
		Own funds 2	Incurrence of liabilities		
			Total	with banks	Other
	DM billion				
1970–4	39.5	17.6	21.9	13.2	8.7
1975–9	46.0	13.9	32.1	23.9	8.2
1980–4	59.8	18.4	41.5	30.7	10.8
1985–9	50.7	22.1	28.5	29.5	— 1.0
1990–1	70.7	33.1	37.6	28.7	8.9
	as % of disposable income				
1970–4	7.4	3.3	4.1	2.5	1.6
1975–9	5.9	1.8	4.1	3.1	1.0
1980–4	5.7	1.7	4.0	2.9	1.1
1985–9	4.0	1.8	2.3	2.3	— 0.0
1990–1	4.5	2.1	2.4	1.8	0.6

* Including private non-profit organisations. — 1 Expenditure on the new construction as well as alterations and extensions of residential buildings, and on the acquisition of land in Germany; after deduction of the consumption of fixed capital. — 2 Capital transfers and current saving; residual.
Discrepancies in the totals are due to rounding. BBk

of the value of their stock of assets. Prices of construction work climbed particularly markedly at the beginning of the seventies when a general acceleration of price trends and a pronounced inflation mentality took hold in the west German economy. This was reflected in a "flight to fixed assets", inter alia, in the form of owner-occupied houses and – not least – apartments, some of which then remained empty for years after prices had become more stable again, and thus brought the overall economic costs of inflation clearly to light. To a certain degree, this "flight to fixed assets", which added to the upward movement of construction prices, was probably what caused the share of households' spending on the acquisition of housing (after deduction of replacement investment) in their disposable income to climb to a peak of 7½% in 1970-4.

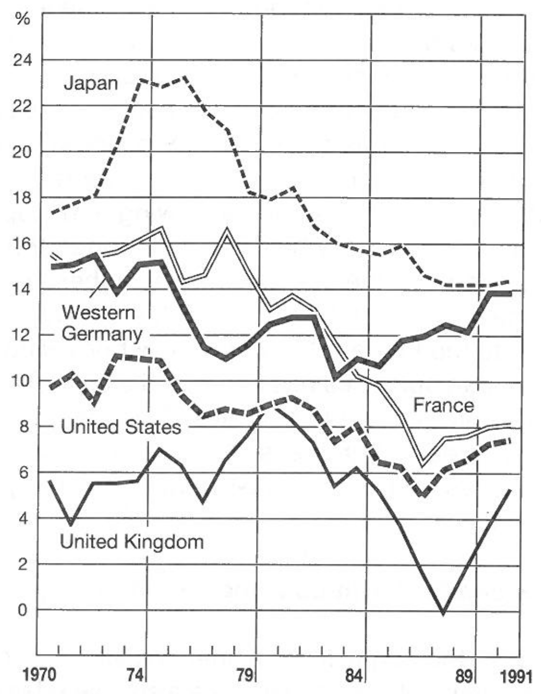
Over the past 20 years, the rapid rise of prices of construction work and land, also as a result of an ever-greater scarcity of suitable sites, has made the acquisition of housing unfeasible for many potential house-owners, or has made it unattractive compared with other income uses. In addition, private construction activity was probably also curbed at times – in the mid-seventies and at the beginning of the eighties, for instance – by signs of a certain saturation of the housing market, which later proved to be only temporary in character. The change in the

3 Private capital formation includes all residential buildings constructed on behalf of households, irrespective of their size and supplemented by the related acquisition of land (after deduction of expenditure on the maintenance of existing property). The calculations are based on the figures published by the Federal Statistical Office in the context of the national accounts on both investment in residential buildings and reproducible fixed assets in the letting of dwellings. Data taken from the statistics on construction activity as well as from appropriate studies undertaken by the German Institute for Economic Research and the Federal Statistical Office were used to determine the shares accounted for by households and to estimate the real property. In view of the fact that they have the character of estimates, our calculations are to be understood as orders of magnitude rather than as precise statistical figures.

ratio between total private net housing investment and disposable income from 7½% in 1970-4 (as noted earlier) to about 4½% in 1990-1 gives an only partial indication of the impact of the aforementioned factors, as expenditure on the extension and modernisation of existing housing (which is likewise included in private housing investment) rose to a far more than proportionate extent in these two decades; on average in the period from 1970 to 1974, it accounted for one-tenth of private housing investment, as against about one-third in 1990-1. The share of spending on new buildings decreased accordingly. However, the increasing scarcity of housing in western Germany associated with migration both from eastern Germany and from central and eastern Europe could cause the ratio of private capital formation to tend to rise again in the next few years. But – as experience in the past two decades shows – any attempt to counter the persistence, right up to the end of the period under review, of the downward trend with increased public support for the acquisition of housing entails the risk of a considerable proportion of the additional funding aid being absorbed by more marked price increases.

As a rule, households in western Germany finance their capital formation largely through *own funds*, a large part of which is traditionally saved with building and loan associations and paid out upon the allocation of contracts for building purposes. Another part is derived from the liquidation of other financial assets held at banks or in the form of securities. In macroeconomic terms, the redemption of earlier building loans must be included in the own funds, because the financing of new dwellings within the scope of overall private housing construction activities is accompanied by the dissaving processes in respect of the existing stock of housing, and thus reduce the household sector's net borrowing requirements. Similar treatment must also be accorded to any land provided and to any work performed by the owners themselves, work which is of increasing significance in the extension and modernisation of dwellings. This is one of the reasons why the internal financing ratio has risen over the long term, together with the already mentioned shift in importance within the field of private housing investment to the benefit of, above all, extension and modernisation measures. Since the mid-eighties the internal financing ratio (including redemptions) has had an estimated share of almost one-half in total private housing investment, compared with one-third in earlier years. Viewed in terms of a single household,

Private saving ratio in major industrial countries *



* Net saving (including acquisition of housing property) as % of households' disposable income; levels not fully comparable on account of different calculation methods.- Source: OECD (national accounts) und national calculations. BBk

which compares the gross capital formation with gross borrowing at the time of acquisition, the internal financing ratio is, of course, very much lower.

In view of the high proportion of internal financing, households' *borrowing requirements* for housing construction purposes remained limited, all in all. On average in 1990-1, households required additional construction finance totalling an estimated DM 37.5 billion, primarily from banks. If the additional loans are measured in terms of the disposable income, the new borrowing ratio calculated in this manner came to 2½%, as it has done since as early as the mid-eighties; at the beginning of the seventies it had still amounted to a good 4%. In the wake of cyclical movements in construction activity, net new borrowing for construction purposes fluctuates far more markedly than the own funds available. Towards the end of the period under review, for instance, there were again signs of increased borrowing by private building owners. For, with the introduction of the possibility, as from October 1, 1991, of deducting debtor interest on new owner-occupied houses and apartments from income tax, private demand for construction work has apparently become considerably more buoyant, as can be seen from the trend in building permits granted, demand which was probably also supported by prospective building owners with lower own funds ratios.

Total saving

If capital formation and financial asset acquisition as well as the incurrence of liabilities are combined to form an overall picture of private saving behaviour, it is found that the population in western Germany is still relatively diligent in this respect. In 1990-1 the share of saving in disposable income (as can be seen from the adjacent table) was only marginally lower, at about 14%, than at the beginning of the seventies, and thus significantly higher than in the second half of the seventies and in the eighties. Accordingly, there is no sign of a stronger long-term decline in saving in the western part of the country. This finding is all the more striking as private saving in a number of comparable countries – as in the United States, in Japan and in France, for instance – has dropped perceptibly over the past two decades (see the chart on page 18). In these countries private net borrowing (both for consumption purposes and for the acquisition of housing property) was a major factor in this; measured in terms of the disposable income, it moved in the range of one-tenth at the end of the eighties, and was thus more than twice as high as in western Germany.

However, the comparatively minor changes recorded in the west German population's saving behaviour since the beginning of the seventies conceal quite a number of opposing determinants, the effects of which obviously largely offset one another. Over the past two decades saving is certain to have profited from the, all in all, rather marked increases in real income, at least insofar as this enabled additional groups of the population to save funds and to contribute increasingly to total saving. But this is opposed, on the one hand, by the fact that unemployment is today higher than it was 20 years ago and, on the other, by the significant deterioration of the population's age structure; on account of their lower income, households comprising either unemployed or older persons, primarily pensioners, have a lower savings ratio. In the last few years, however, providing for one's old age on one's own responsibility over and beyond what is normally guaranteed – via the pension insurance funds, for instance – seems to have gained importance, something which may have encouraged saving during one's working life.

Households' capital formation and acquisition of financial assets, and its financing *

Annual average	Capital formation and financial asset acquisition 1	Incurrence of liabilities 2	Own funds		
			Total	Capital transfers	Current net saving 3
	DM billion				
1970–4	113.1	27.6	85.5	5.8	79.7
1975–9	151.6	47.5	104.1	6.9	97.2
1980–4	182.0	52.0	129.9	5.4	124.5
1985–9	196.6	42.2	154.5	2.7	151.8
1990–1	282.6	66.0	216.6	— 0.4	216.9
	as % of disposable income				
1970–4	21.3	5.2	16.1	1.1	15.0
1975–9	19.5	6.1	13.4	0.9	12.5
1980–4	17.4	5.0	12.4	0.5	11.9
1985–9	15.6	3.3	12.2	0.2	12.0
1990–1	18.2	4.2	13.9	— 0.0	14.0

* Including private non-profit organisations. — 1 Acquisition of housing property in Germany (after deduction of the consumption of fixed capital) and financial assets. — 2 For housing and consumption purposes. — 3 Residual.
Discrepancies in the totals are due to rounding. BBk

Whether cut-backs in the government's policy to promote saving (which explain the drop in the capital transfers received by households) had the effect of reducing saving cannot be ascertained.

West German households are highly consistent in respect not only of the level of their savings but also of the breakdown of their savings by capital formation and the acquisition of financial assets. Investments in financial assets stand in the foreground, accounting for more than four-fifths of the income not spent on consumption. One-sixth of total saving is used to acquire and improve the standard of housing property, which a good two-fifths of the households meanwhile own themselves.

In the long run, the expansion of the stock of private housing property goes hand in hand with a significant increase in the maintenance expenditure needed as a result of the loss in value associated with the use of dwellings. In the national accounts, this is taken into account in the form of the consumption of fixed capital calculated at replacement cost. At first sight, such considerations, which are largely derived from the corporate sector, may be unfamiliar to many owners of houses or apartments they use themselves because at first solely actually incurred payment commitments – e.g. debt servicing payments – play a role in their calculations. But they, too, will probably not infrequently take account of later burdens, such as those caused by major renovations. The consumption of fixed capital gives an indication of the amounts to be appropriated for this purpose in each period. The consequence of all this is that write-downs in respect of private capital formation must ultimately be treated as a reduction in private saving, and thus – accordingly – households' disposable income. On the other side, this applies similarly to replacement investments to safeguard the utility value of privately owned housing property, the amounts of which correspond to the write-downs; they were deducted from the total investments in construction so as to determine the "true" growth of assets. The expansion of the stock of housing and the markedly higher construction costs have caused the imputed write-downs of private residential buildings and owner-occupied dwellings to rise considerably in the period under review. In 1990-1 they averaged about 3½% of income, so that their share was 50% higher than 20 years earlier.

The business of the mortgage banks since the beginning of the eighties

The business environment for private and public mortgage banks changed considerably during the eighties. The growth of mortgage lending slackened. At the same time, the demand for communal loans flattened out as the public authorities adopted a consistent consolidation policy and increasingly switched – notably the Federal Government – to direct capital market borrowing. Finally, competition in mortgage lending intensified. The traditional division of labour was eroded further. New competitors, such as the commercial banks, captured additional market shares. The product ranges of the different categories of banks converged, after the mortgage banks had had to switch from very long-term fixed-rate mortgage loans to medium-term "segment financing" in the wake of the slide in the prices of their long-term mortgage bonds at the beginning of the seventies.

Despite these factors, private mortgage banks – unlike public mortgage banks – were able to maintain their position in the banking industry, not least because they managed their assets and liabilities more in keeping with microeconomic optimisation criteria. Fixed-rate industrial real estate financing increased in importance for this category of banks. Moreover, their close association with commercial banks afforded them access to new potential markets as part of their strategy of providing the complete range of financial services "under one roof". With the recent reversal of trends in the rented housing market and in public finance, the outlook for mortgage banks has brightened distinctly again. Moreover, further business opportunities are also opening up in the new Länder and as part of the single European market. At the same time, competitive pressures will of course increase as a result of more exacting capital standards.

Institutional aspects and the legal framework

In the German banking system, the salient feature of which is the universal bank principle, mortgage banks, being specialised banks, occupy a special position. They are subject not only to the Banking Act but also to other legal provisions, such as the Mortgage Bank Act and the Act concerning Mortgage Bonds and Similar Bonds Issued by Public Banks – provisions which restrict the range of authorised activities substantially to mortgage lending and communal loan business. Mortgage banks[1] fund most of their lending at matching maturities and interest rates by issuing mortgage bonds and

1 In the Bundesbank's banking statistics the two major "mixed" Bavarian banks, which are licensed to conduct "universal" banking business as well, are included with their entire business in the regional bank category, rather than in that of mortgage banks, so that the figures may differ to this extent from those published by the appropriate banking associations. A third "mixed" bank which for the most part used to conduct business typical of mortgage banks is included in the mortgage bank category.