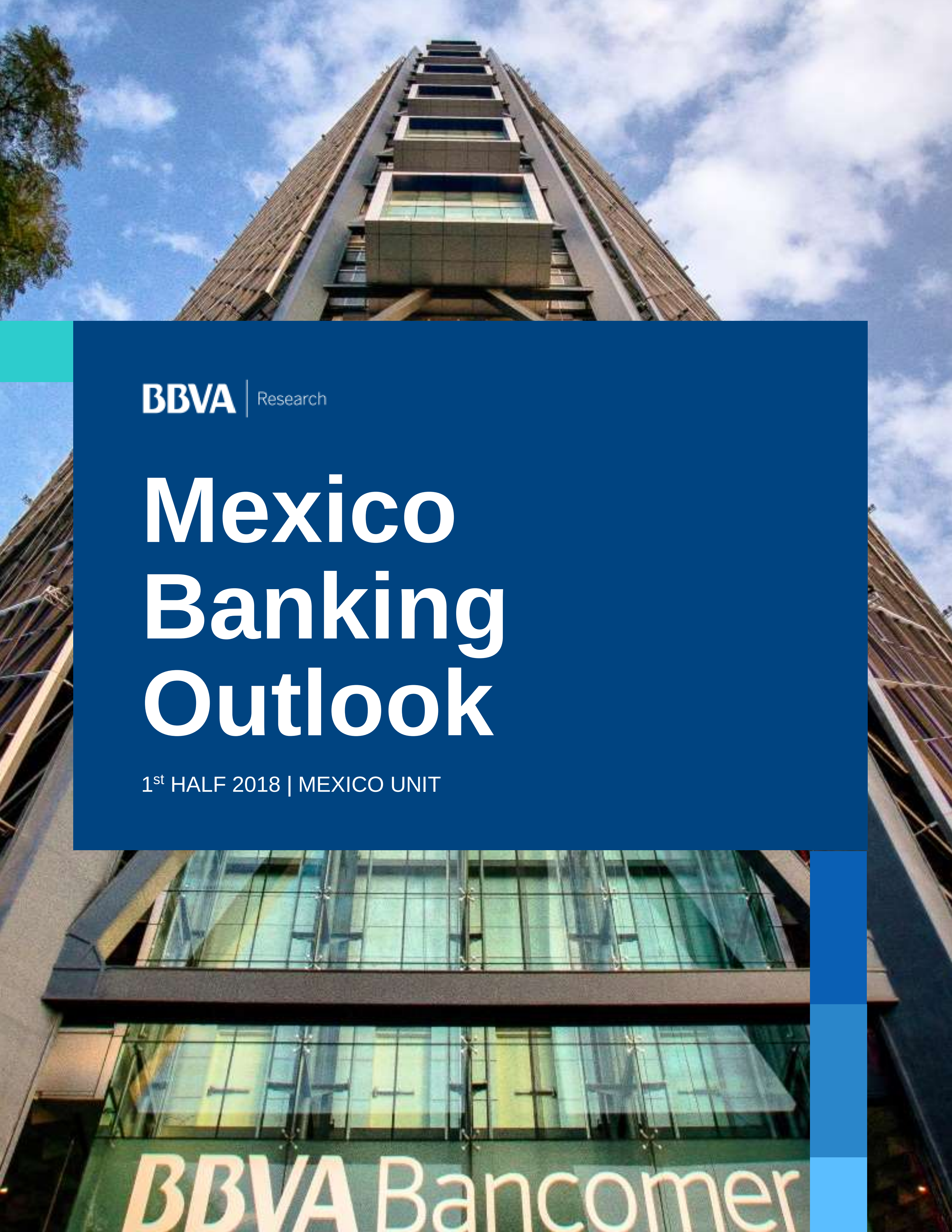
BBVA | Research

Mexico Banking Outlook

1st HALF 2018 | MEXICO UNIT



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Closing date**: 9 February 2018**

1. Summary

In 2017, credit to the non-financial private sector (consumer, companies and housing) and traditional bank deposits (sight + term) both slowed down. In the case of credit, in 2017 the portfolio only grew by half the growth rate observed in the previous year. The slowdown in portfolio growth became more pronounced as the year progressed and, by the end of 2017, most of the segments recorded minimum growth rates compared to other months of the year and even lower than those observed in previous years.

Among the factors that explain the loss of momentum in both credit and deposits during 2017 are: slower growth in economic activity compared to the previous year, an environment of greater uncertainty that accentuated pessimism about the evolution of the economy and the shrink in real wages for formal-sector workers due to higher inflation, with a resulting loss of household purchasing power.

Less economic activity means less ability to generate income, which in turn reduces the demand from the various categories of credit, because potential customers do not have the level of income to pay back any further loans that they might take out. Another factor was the increase in reference interest rates, which mainly affected the cost of business credit. The higher interest rates on the new loans that were granted during the year demonstrates this point.

Given that some of the adverse effects observed in 2017 have begun to ease, as in the case of inflation, we expect a recovery in real wages that will eventually allow household credit to recover its momentum. In the case of business credit, we expect costs to remain relatively stable, in line with our forecast that the Bank of Mexico will maintain a more neutral monetary policy for the rest of 2018. Even so, the short-term scenario of lower investment that we are expecting may moderate the demand for credit from this segment.

It is worth noting that, **despite the prevailing macroeconomic environment in 2017, the delinquency rates of the loan portfolio were hardly affected**, since, apart from a limited deterioration of the consumer credit portfolio, there was no great impact on the mortgage and business credit portfolios. In fact, the delinquency rates for these two categories developed favourably, decreasing throughout 2017.

The various segments that make up the savings aggregates analysed showed a deceleration of the real variables and a worsening of expectations in 2017. It should be noted that the official capital repatriation programme (effective from January to October 2017) led to an increase in foreign-currency deposit balances and, together with the increase in the interest rate on term deposits, helped to partially cushion the slowdown in bank deposits. From now on, greater dynamism in this revenue capture will be based on more vigorous economic performance, the recovery of household purchasing power and an environment with less uncertainty, all of which will encourage longer-term savings.

Financial services commitments that were made through a variety of international agreements, including NAFTA, have contributed to increasing investment, expanding and capitalising Mexico's financial system, by developing more globalised financial markets and diversifying investments. We believe that a possible exit from NAFTA would have a limited effect on the structure of the country's financial sector and the variety of services it offers. In regard to the solidity of the system, given the environment of greater volatility and the possibility of a sudden reversal of capital flows, the capital and liquidity levels of the Mexican banking system as a whole are reasonable and can withstand the impact of adverse scenarios.

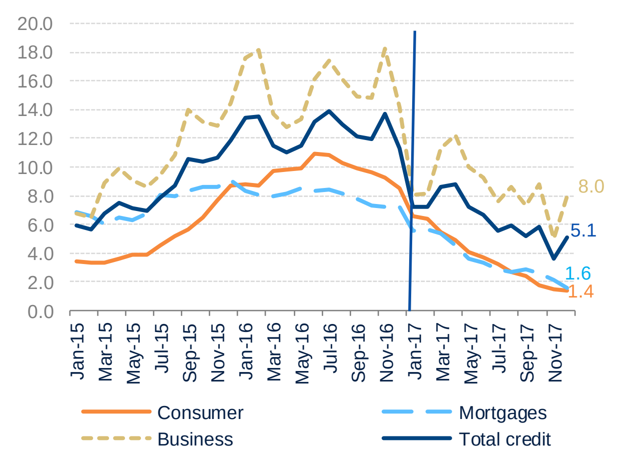
In particular, the "standstill" obligation and the principle of non-discrimination underlying the OECD Codes, to which the three NAFTA members adhere, contribute significantly to dissuading them from reversing the liberalisation achieved by their respective countries' financial sectors. A country that re-imposed restrictions on previously liberalised services would not only limit or make access by these services to financing on international markets more expensive and might also delay the development, maturity and options of its own financial sector.

2. Market Conditions

2a. Dwindling economic activity and household purchasing power are affecting the demand for credit to the private sector in 2017

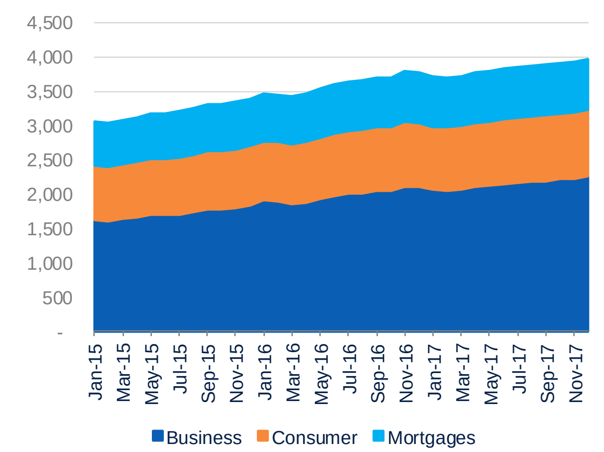
In 2017, bank credit to the non-financial private sector (which includes consumer credit, mortgages and business credit grew more moderately than in 2016. On average, current loans grew at a real annual rate of 6.4%, while in 2016 they grew by 12.6%. In other words, portfolio growth in 2017 was almost half (6.2 percentage points) the growth of the previous year. The portfolio slump was accentuated as the year progressed, since the rate fell to 5.2 % in 2H-17, after an average real annual growth-rate of 7.6%. in 1H-17. At the end of 2017, the current amount of credit granted by the banking sector to the private sector was 4.0 billion pesos, a real annual increase of 5.1%, one of the lowest rates for the year (Graph 1).

Graph 2a.1 Current bank credit to the non-financial private sector (Real annual growth)



Source: BBVA Research based on data from INEGI (National Statistics Institute) and Banxico

Graph 2a.2 Current bank credit to the non-financial private sector (Balance in pesos, December 2017)



Source: BBVA Research based on data from INEGI and Banxico

At the end of 2017, most segments recorded minimal growth rates compared to other months of the year and even lower than those observed in previous years. Only business credit (56.0% of the current portfolio for the non-financial private sector) ended the year with slightly higher growth (8.0% real annual) and a current balance of 2.3 billion pesos. Consumer credit registered a balance of 952 billion pesos (23.5% of the portfolio), which meant real annual growth of 1.4%, the lowest since November 2010, when there was none. Mortgages followed a similar trajectory and by December 2017 their balance was 745 billion pesos (18.4% of the portfolio), with a real annual growth-rate of 1.6%, the lowest since August 2003 (Graphs 1 and 2).

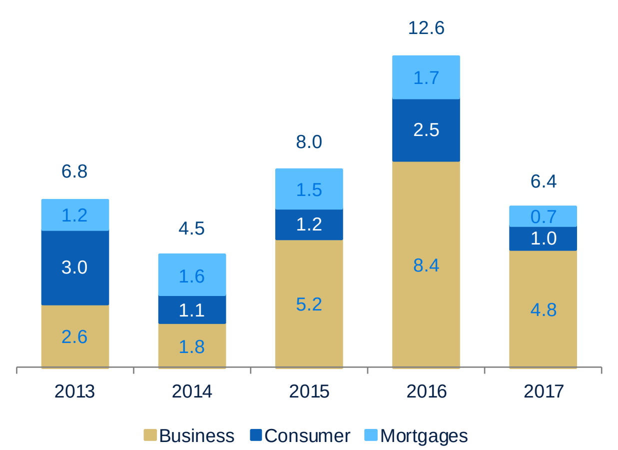
Looking at the annual averages, the three segments of the portfolio performed more moderately than in the previous year, although in relative terms, compared to the other segments, business credit were most dynamic. The average growth for this segment in 2017 was 8.7% in real terms, while consumer credit registered an average real annual rate of 3.7%, closely followed by mortgages, which grew by 3.6% over the year. Because of the above, the business portfolio increased its contribution to total portfolio growth compared to the previous year. That is, 75% of the growth observed in 2017 in banking credit to the non-financial private sector came from business credit (4.8 pp at the average rate of 6.4%) compared to 67% in 2016 (when it contributed 8.4 pp to the average growth of 12.5%). In contrast, consumer credit and mortgages contributed 15% (1.0 pp) and 12% (0.7 pp), respectively, which was less than in 2016 (2.5pp and 1.7pp, respectively).

The factors that to a large extent explain the slowdown in current credit to the private sector in 2017 are mainly due to the macroeconomic environment, which has weakened the demand for credit. One is the fact that economic activity grew less in 2017 than in the previous year and another that the real salaries of formal-sector workers contracted due to higher inflation, with a resulting loss of household purchasing power. Less economic activity means less ability to generate income, which in turn reduces the demand from the various credit categories, because, in this case, potential customers do not have sufficient income to pay back any more loans that they might take out. On the supply side, there was a noteworthy increase in the prime rates, as a result of a more restrictive monetary policy by the Banco de México. This mainly affected the cost of business credit and mortgages, due to higher interest rates for the new loans granted during the year. The rate increases for consumer credit were not transferred to the cost of financing.

2a.1. Business credit slowed down in an environment of lower economic growth, lower investment and higher interest rates

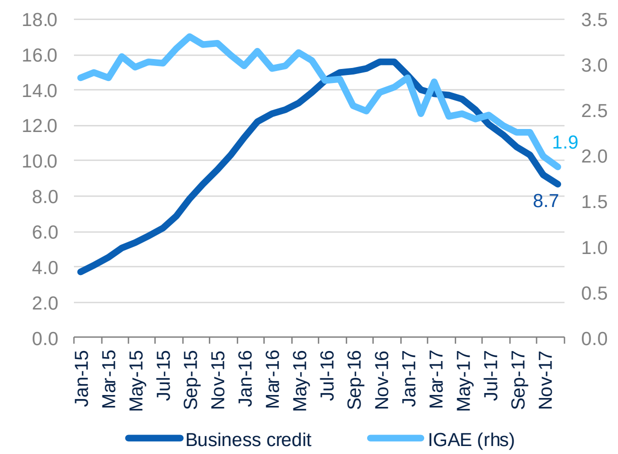
Business credit was more buoyant than credit as a whole, but less than the previous year. In 2017, the average annual real growth was 8.7%, while in 2016 it rose by 15.7%. The prevailing uncertainty of the economic environment at the beginning of the year due to the change of administration in the US government and the possible breakdown of the North American Free Trade Agreement (NAFTA) resulted in lower growth in the business portfolio during the first two months of 2017. In fact, although at the end of 2016 there was average real annual growth of 14.2%, in January and February 2017 it fell to an average of 8.1%; i.e., a drop of 6.0 pp. However, towards the end of 1Q-17, the new US administration's attitude toward renegotiating NAFTA seemed more moderate, which contributed to a slight recovery in the growth of the portfolio, which reached 12.2%, the highest rate of the year.

Graph 2a.3 Current bank credit to the non-financial private sector. Real annual average rate (%) and contribution to growth by segment (pp)



Source: BBVA Research based on data from INEGI (National Statistics Institute) and Banxico

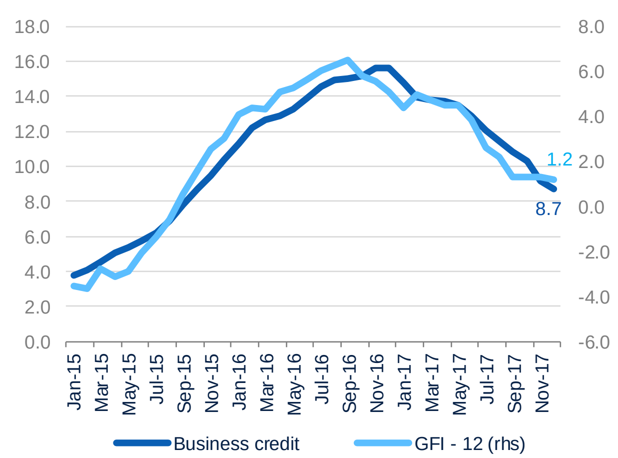
Graph 2a.4 Business credit and IGAE (Real annual growth, moving average 12 months, %)



Source: BBVA Research based on data from INEGI (National Statistics Institute) and Banxico

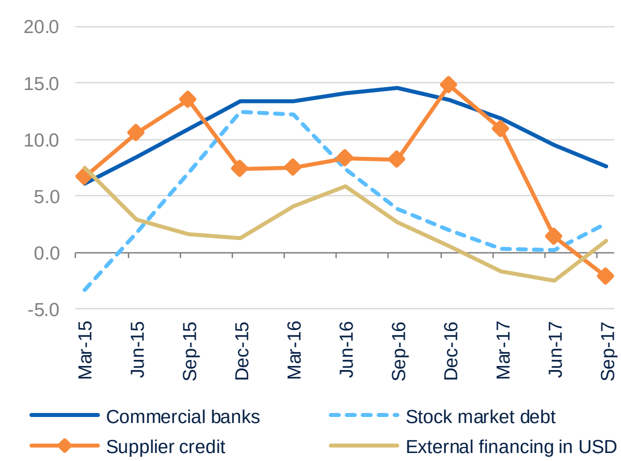
During the rest of the year, more moderate behaviour was observed, due to demand and supply factors. On the demand side, the sluggishness of the economy was apparent in 2017, as shown by the General Indicator of Economic Activity (IGAE), which registered average growth of 1.9% during 2017, less than the 2016 average of 2.8% (Graph 4). Similarly, influence was exerted by the delayed effect of the slowdown on gross fixed investment observed since 2016, when it grew on average by 1.2% compared to growth of 5.1% in 2015 (Chart 5).

Graph 2a.5 Business Credit and Gross Fixed Investment (Real annual growth, moving average 12 months, %)



Source: BBVA Research based on data from INEGI and Banxico

Graph 2a.6 Business financing by type of source (Real annual growth, %)

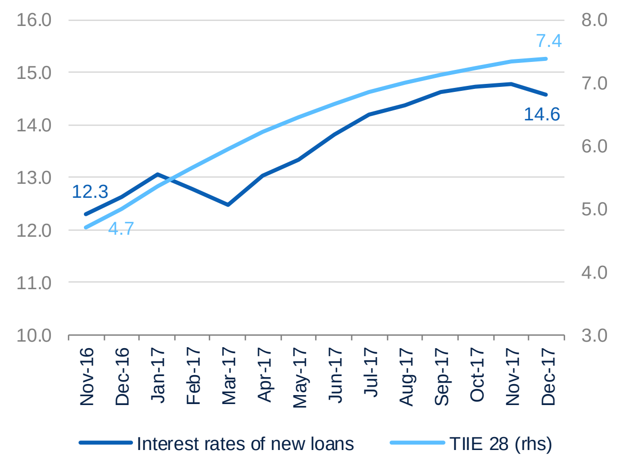


Source: BBVA Research based on data from INEGI and Banxico

Greater diversification in the sources of financing for companies was another determining factor for the behaviour of the portfolio. Although bank credit was the most buoyant in 2017, towards the end of the year other sources were beginning to recover, such as stock market debt and borrowing from abroad (Chart 6).

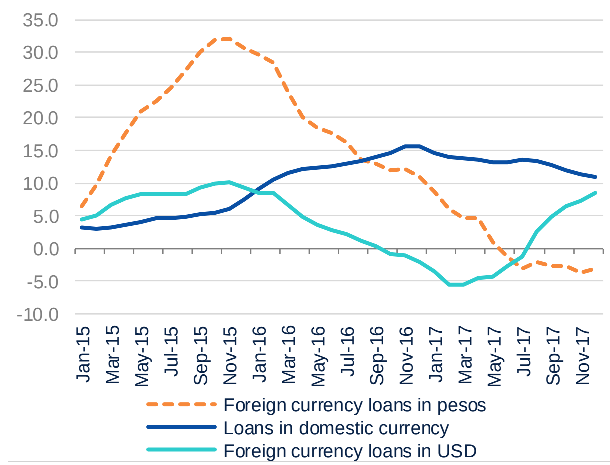
On the supply side, we identified two factors. The first was the increase in the prime rates, which were part of a more restrictive monetary policy adopted by the Bank of Mexico at the end of 2016. The increases in the prime rates finally affected the interbank equilibrium interest rates (TIIE), among other things. For example, the 28-day TIIE of October 2016 was 5.1%; in December of that year it rose to 6.1%; and by the end of 2017 it had increased to 7.6%. Higher interest rates increase financing costs and, therefore, reduce the demand for financing. This increase was seen directly in the business credit interest rates. The interest rates for these bank loans usually follow the TIIE, and any increases make new loans more expensive. In fact, according to information from the CNBV, the weighted average interest rate for new loans rose from an average of 12.6% in 2H-16 to 14.6% in 2H-17; that is, an increase of 190 bp.

Graph 2a.7 Weighted average interest rate for marginal business loans and 28-day TIIE (%)



Source: BBVA Research based on CNBV data

Graph 2a.8 Performing loans to businesses and individuals by type of currency
(Real annual growth, moving average 6 months, %)

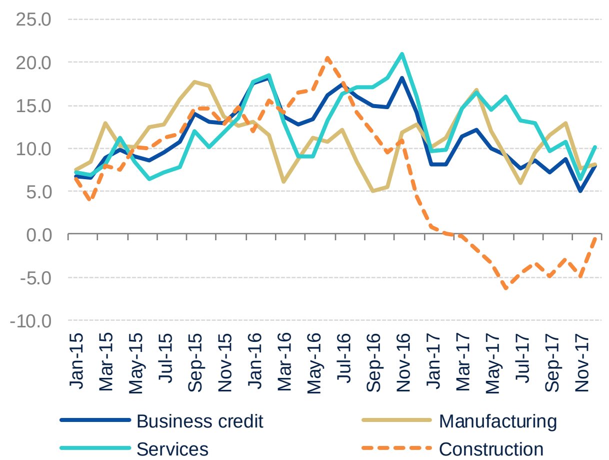


Source: BBVA Research based on data from INEGI (National Statistics Institute) and Banxico

By currency, both credit denominated in the national currency (NC) and in foreign currency (FC) valued in pesos slowed down. Credit in NC (77.2% of the portfolio) registered an average real annual growth of 12.0%, lower than the 14.1% observed in 2016 (Graph 8). On the other hand, credit in FC valued in pesos showed a real average annual drop of 2.3%, which was due to the appreciation of the exchange rate, which occurred most markedly in 2H-17, when it reached an average level of 18.5 pesos per US dollar (pesos/USD) compared to a level of 19.2 pesos/USD in 1H-17. As a result, the FC portfolio's share of the business portfolio decreased as, while in 2016 it represented on average about a quarter of the total (24.7%), in 2017, its share fell to 22.2%. This occurred despite the fact that companies increased their bank debt in

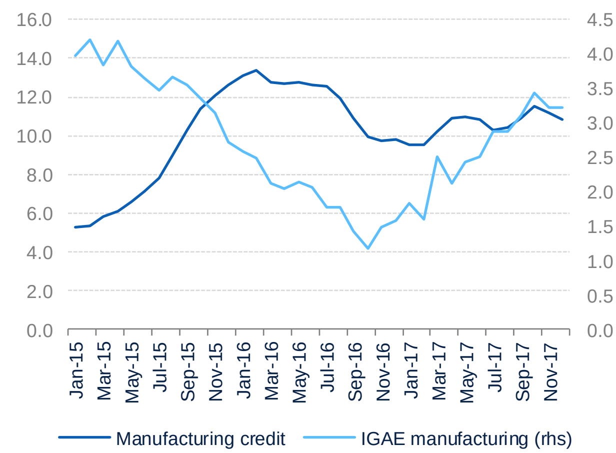
FC, since the valuation in USD of this portfolio grew at an average annual rate of 2.8%. However, exchange rate appreciation had a compensatory effect on the rate of growth of credit valued in pesos and on the current business portfolio (Chart 8).

Graph 2a.9 Business Credit by sector of economic activity (Real annual growth, %)



Source: BBVA Research based on data from INEGI (National Statistics Institute) and Banxico

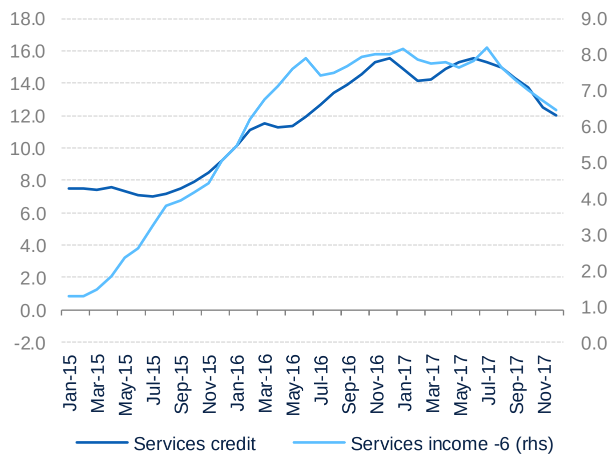
Graph 2a.10 Business Credit to the manufacturing sector and IGAE * (Real annual growth, %)



* 12 months moving average
Source: BBVA Research based on data from INEGI (National Statistics Institute) and Banxico

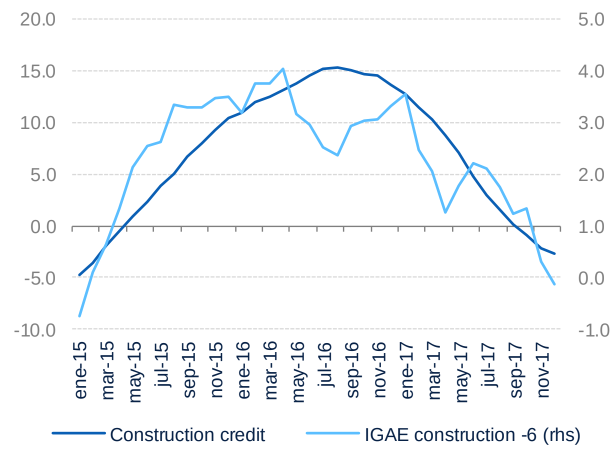
The economic activity of reputable companies slowed down in most sectors. Only credit to manufacturing companies (22.4% of the companies' portfolio) showed improved performance in 2016. It grew at an average real annual rate of 10.8%, 1 pp more than the average rate for the previous year (Graph 9). This behaviour was similar to that shown by the manufacturing IGAE, which in 2017 grew at an average annual rate of 3.2%, twice the rate recorded in 2016 (Chart 10). In contrast, credit to service sector companies (52% of the portfolio) fell from an average real annual rate of 15.5% in 2016 to 12.0% in 2017. This is mainly explained by reduced growth in the income of the companies in this sector, which shows a high correlation with this type of credit. While in 2016 total revenues from the provision of non-financial services grew at an average rate of 7.8%, in 2017 growth was 4.8%. Finally, credit to construction companies fared worst, registering a negative real annual average rate of -3.5%. This remains in line with the sector's activity, because, as mentioned in the most recent issue of the ***Mexico Real Estate Outlook***, at the end of 3Q-17 the construction GDP had recorded weaker growth than the economy overall for the last 5 quarters.

Graph 2a.11 Business credit and total inflows for the services sector
(Real annual growth, moving average 12 months, %)



*12 months moving average
Source: BBVA Research based on data from INEGI and Banxico

Graph 2a.12 Loans to the construction sector companies and IGAE* (Real annual growth, %)



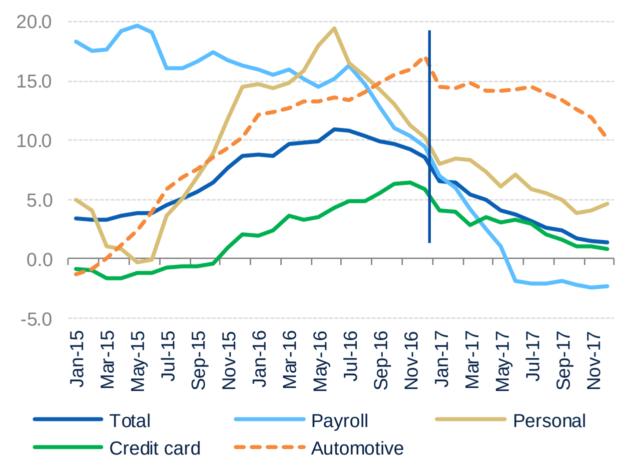
*12 months moving average
Source: BBVA Research based on data from INEGI and Banxico

2a.2. The deterioration in real wages during 2017 affected the demand for consumer credit, despite relative stability in financing costs

Consumer credit grew at an average real annual rate of 3.7% in 2017, less than half the average growth for 2016 (9.7%). Since June 2016 – when it grew at a real annual rate of 11.0% – there has been an ongoing slowdown in this segment, which was accentuated in the first months of 2017 in response to greater pessimism and uncertainty on the part of consumers because of the change in the US administration, the depreciation of the exchange rate and the increase in fuel prices in the domestic market. The downward trend continued during the year, so that by the end of 2017 there was real annual growth of 1.4% (Graph 13).

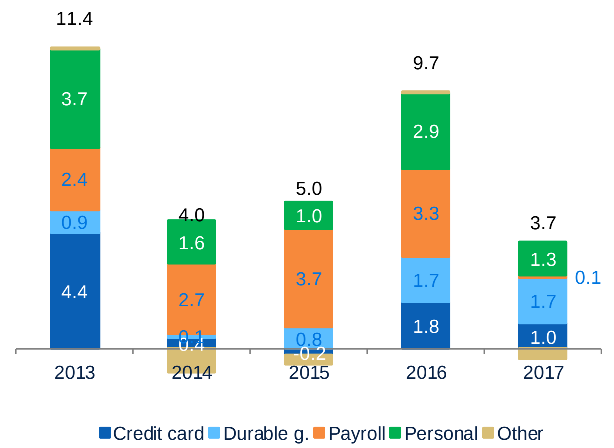
This was the result of a slowdown in all consumer segments, especially payroll loans and personal loans. Payroll loans went from an average real annual growth of 13.9% in 2016 to only 0.5% in 2017, while personal loans grew by 6.2% in 2017 (compared to 14.8% in 2016). The growth rate of the other segments also fell compared to the previous year, although not as drastically. Credit card financing (CCF) fell by 1.9 pp (from 4.4% to 2.5%), while loans for consumer durables (LFCD) decreased by 0.6 pp, due to slight reductions in car loans (-0.4 pp). During 2017, therefore, LFCD credit most influenced the growth of the consumer portfolio (46.4% or 1.7 pp to the total rate), thanks to car loans, followed by personal loans (34.1% or 1.3 pp) and CCF (26.5% or 1.0 pp). Payroll loans came last, contributing only 3.1% (0.1 pp). This situation contrasts with 2016, when this segment contributed most of the growth (34.2% or 3.3pp of the total rate of 9.7%) (Graph 14).

Graph 2a.13 Consumer credit by segment (Real annual growth, %)



Source: BBVA Research based on data from INEGI and Banxico

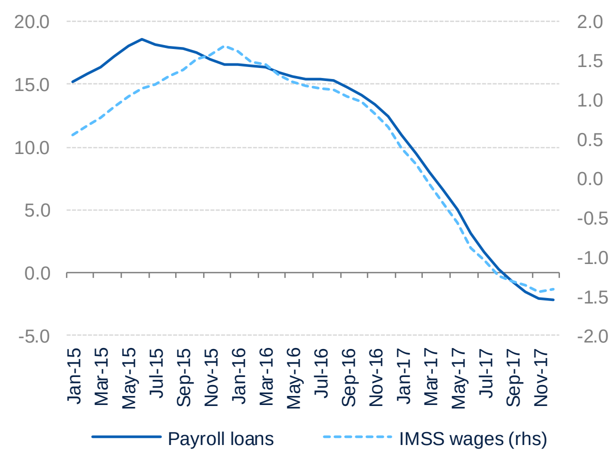
Graph 2a.14 Performing consumer credit. Real annual avge. rate (%) and contribution to growth by segment (pp)



Source: BBVA Research based on data from INEGI and Banxico

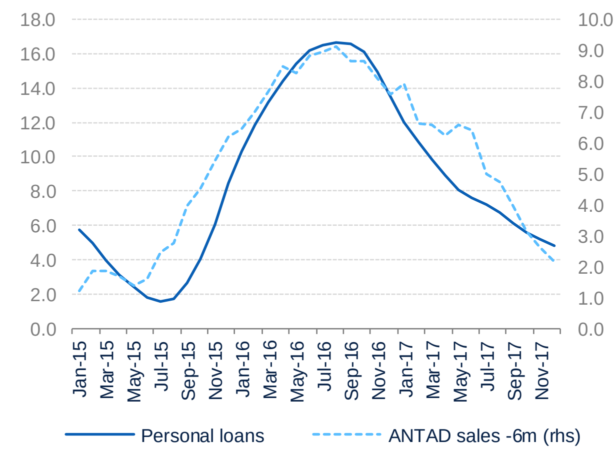
As already mentioned, among the consumer credit segments, the payroll loan segment posted marked deceleration and ended the year with the weakest performance in the portfolio. During the first half of the year this segment maintained positive inter-annual rates, although they were more moderate than in 2016. However, starting at the end of 2Q-17, it deteriorated and fell, continuing until the end of the year, when a real annual contraction of 2.3% could be seen, the highest since Banxico began to publish the figures (Feb-11). The evolution of this segment is closely related to the weak performance of household income, measured through the daily wage of workers insured with the IMSS. As the year progressed, this indicator showed increasingly negative annual rates. However, starting in the second half, the drop stabilised at an average rate of -1.4%. Payroll credit began to show similar behaviour, with negative rates stabilising around -2.2% (Graph 15).

Graph 2a.15 Payroll loans and daily wages for workers insured with the IMSS
(Real annual growth, moving average 6 months, %)



Source: BBVA Research based on data from STPS, INEGI and Banxico

Graph 2a.16 Personal loans and ANTAD sales
(Real annual growth, moving average 6 months, %)

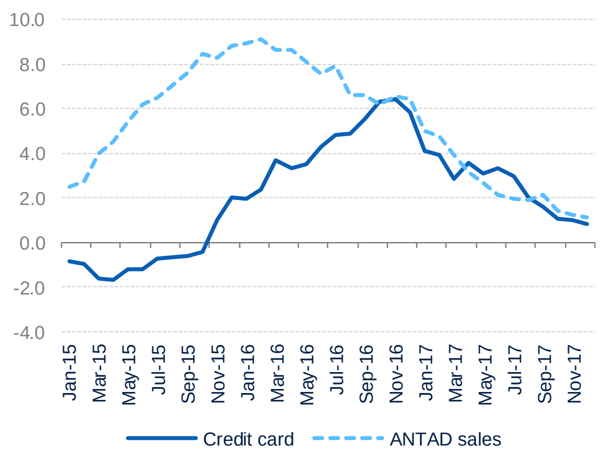


Source: BBVA Research based on data from ANTAD, INEGI and Banxico

The growth of personal loans also weakened significantly. This sector slowed down continuously during most of 2017, until October, when it registered the lowest rate of the year (3.8%). However, in the last two months of 2017, the trend seemed to reverse and show some signs of recovery, registering slightly higher rates (4.1% in November and 4.7% in December). The growth of personal loans seems to be linked, with some delay, to the behaviour of domestic consumption, measured by the growth of total sales by stores associated with the National Association of Self-Service and Department Stores (ANTAD) (Chart 16).[1] This indicator grew more slowly during the year, with an average annual real growth rate of 1.7% in 2017, well below the 7.2% rate recorded the previous year. Similarly, the behaviour of credit card financing was linked to the slowdown in ANTAD sales, but with a more immediate effect than in the case of personal loans (Graph 17).

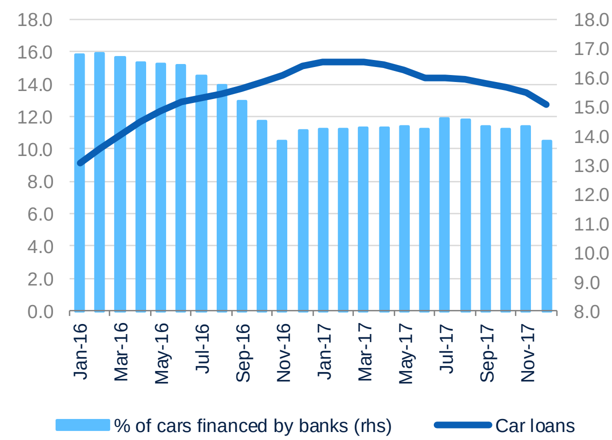
1: The correlation of this indicator with the growth of personal credit is narrower, with a delay of 6 months. The correlation coefficient for the period from January 2015 to December 2017 is 0.93.

Graph 2a.17 Total CCF and ANTAD sales by stores (Real annual growth, moving average 6 months, %)



Source: BBVA Research based on data from ANTAD and Banxico

Graph 2a.18 Car loans and percentage of car sales financed by banks (Real annual growth, %)

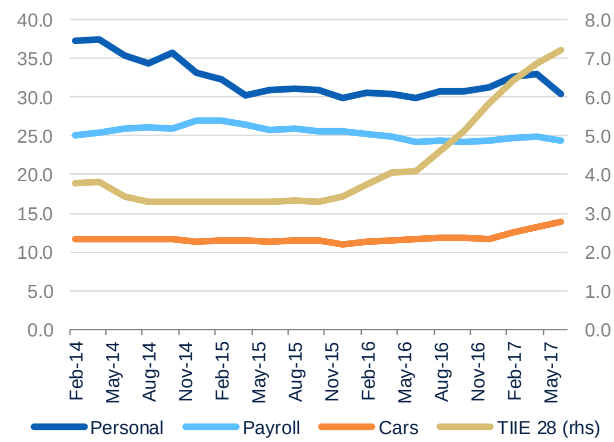


Source: BBVA Research based on data from CNBV, INEGI and AMDA

Finally, car loans were the fastest growing segment in the consumer portfolio, achieving double-digit real growth throughout the year. However, their behaviour was very similar to that of the other segments, with greater deceleration in the second half, so that they ended the year with a real annual growth of 10.2%, the lowest rate for all of 2017. The more resilient behaviour of car loans contrasted with the evolution of car sales, where the number of units sold fell on average by 6.3% in 2017, compared to the growth of 18.3% in 2016. The difference between the evolution of car loans and car sales is due to the fact that, for most of the year, the percentage of car sales financed by banks remained relatively stable, at an average of 14.3%. That is, out of every 100 cars sold during 2017, an average of 14 were purchased through a bank loan. It was not until the end of 2017 that this proportion dropped slightly, to 13.8% (Graph 18).

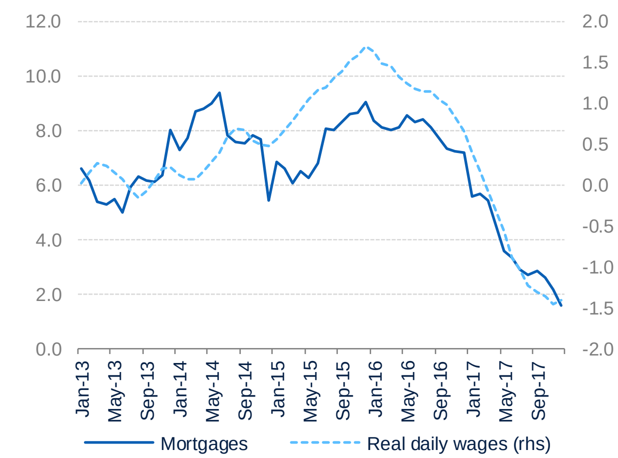
On the supply side, the stability observed in the cost of some credit segments stands out, despite the scenario of higher interest rates. This is the case for payroll loans, where the 2017 interest rate on new loans averaged 24.7%, practically the same as the average rate for 2016 (24.6%). Other consumer segments, such as car loans, registered some increases, but less than the increase in the reference rates (Chart 19).

Graph 2a.19 Interest rates on marginal loans and TIIE (%)



Source: BBVA Research based on data from CNBV and Banxico

Graph 2a.20 Mortgages and daily wages for workers insured with the IMSS
(Real annual growth, moving average 12 months, %)



Source: BBVA Research based on data from CNBV, INEGI and STPS

2a.3. Slowdown in mortgages associated with decreased purchasing power and less consumer confidence

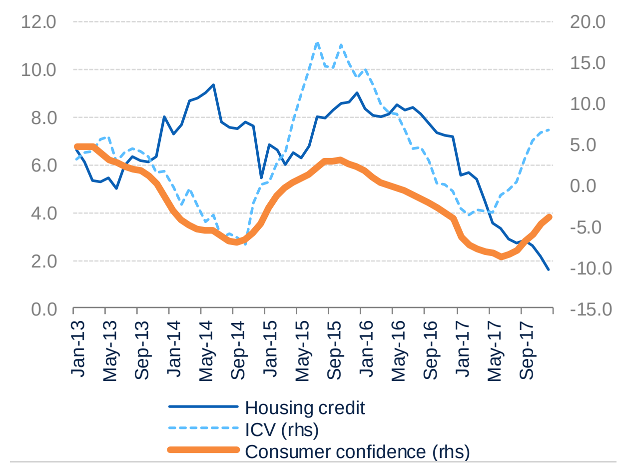
Mortgages registered an average real annual growth of 3.6% in 2017, less than half the average rate of 7.9% observed in 2016. Throughout the year there was a continuing downward trend and by the end of 2017 growth was only 1.6%, the lowest rate since August 2003.

Among the factors that influenced this behaviour was less creation of jobs with incomes higher than five minimum wages, which are the main target for this type of credit.[2] Other factors that affected the growth of credit were the negative real wages observed during the year (Chart 20) and the delayed effect of the deterioration in consumer confidence that was observed mainly at the beginning of the year (Chart 21).

On the supply side, some increases in the interest rates for new loans were observed, in line with the increases in long-term rates (M10 bond), favoured in turn by the increase in the monetary policy rate by the Banco de México. However, the increase in the mortgage rate occurred gradually and lagged behind the M10 Bond rate. The latter showed a substantial increase (90 bp) between October and November 2016, but this was not reflected in the mortgage rate until 1Q-17. Since then, the rate has remained relatively stable at around 10.3% (Graph 22).

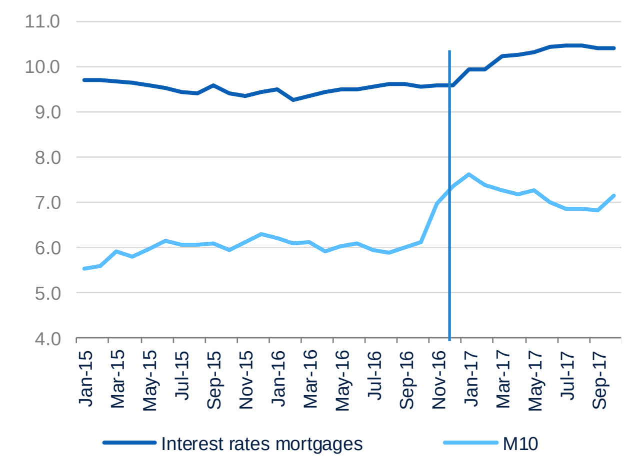
2: For more detail see the ***Mexico Real Estate Situation*** for 1H-18

Graph 2a.21 Housing credit, consumer confidence and the Housing Confidence Index (ICV)
(Real annual growth, %)



Source: BBVA Research based on data from INEGI and Banxico

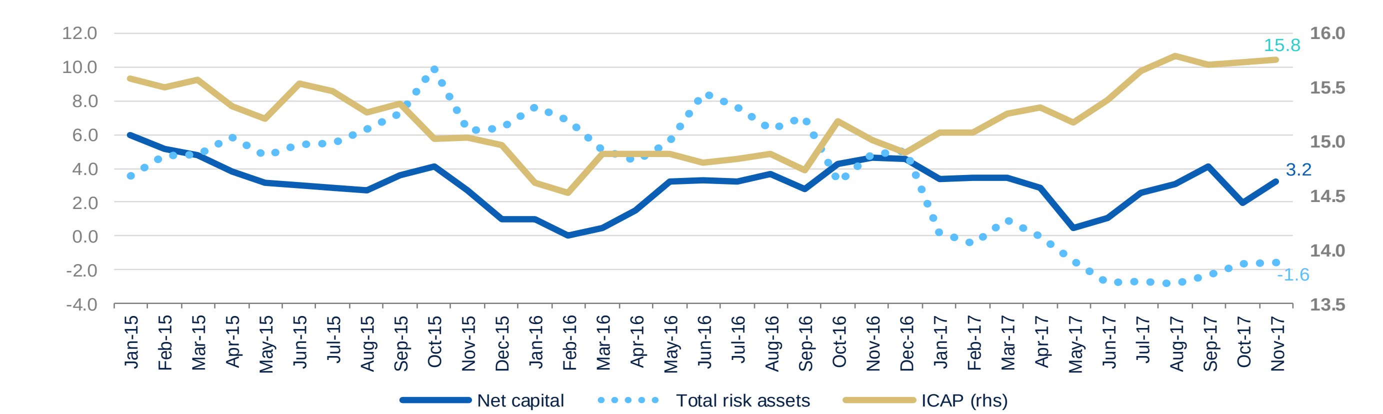
Graph 2a.22 Interest rates on new mortgages and the M10 Bond (%)



Source: BBVA Research based on data from CNBV and Bloomberg

Finally, it should be noted that at the end of November 2017, the Capitalization Index (ICAP) of commercial banks reached 15.8%, an increase of almost one percentage point compared to the end of November 2016. This was caused by an increase in net capital that was more than proportional to the increase in risk-weighted assets. In fact, net capital registered a real annual increase of 3.2% in November 2017, while risk-weighted assets dropped to a rate of -1.6% (Graph 23). This was due, on the one hand, to the fact that some institutions substantially increased their non-fundamental capital by issuing eligible subordinated debentures to be computed as consistent regulatory capital in accordance with the provisions of Basel III. On the other hand, the slowdown in the loan portfolio, mainly in consumer credit, reduced the growth rate of risk-weighted assets.

Graph 2a.23 Home loans, consumer confidence and the Housing Confidence Index (ICV)
(Real annual growth, %)



Source: BBVA Research based on CNBV data

2a.4. Credit to the private sector will continue its moderate growth as long as the uncertainty surrounding economic activity prevails

The macroeconomic environment in 2017 was characterised by a lower economic growth rate, an increase in the prime rates, higher inflation and the resulting contraction of the real salary of workers affiliated with the IMSS. The individual and aggregate effects of these factors significantly slowed down the growth rate of the private sector performing loan balance during 2017. Given the delayed effect that these variables have on some credit segments, it is to be expected that their impact will continue at least until the first half of 2018.

However, some of the adverse effects observed in the previous year, such as inflation, have begun to ease. This will help real wages to recover and eventually allow household credit to recover its dynamism. In the case of business credit, we expect loan costs to remain relatively stable, in line with our forecast that the Bank of Mexico will maintain a more neutral monetary policy for the remainder of 2018. Even so, the short-term scenario of lower investment that we are expecting may moderate the demand for credit from this segment.

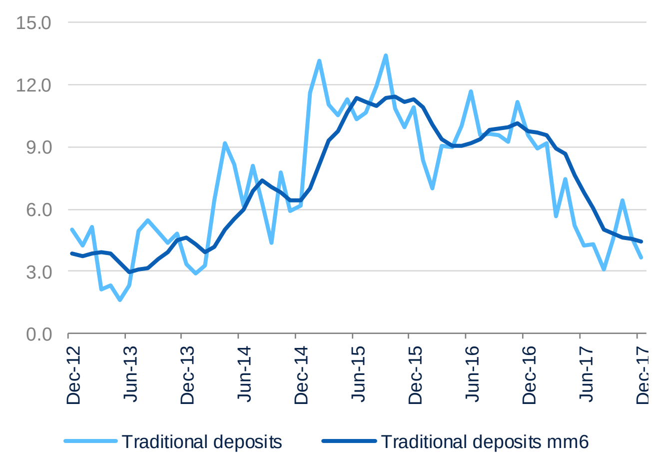
Finally, in the case of mortgages, we anticipate a slower recovery, since not only is a less volatile environment required so that households can take on longer-term commitments, but it will also be necessary to increase the pace of job growth at higher salary levels (more than five minimum wages), so that households can meet their debt obligations without compromising what is required to satisfy their basic needs.

2b. Commercial banking uptake loses its dynamism in 2017

2b.1. The performance of economic activity and inflation slow down traditional bank deposits

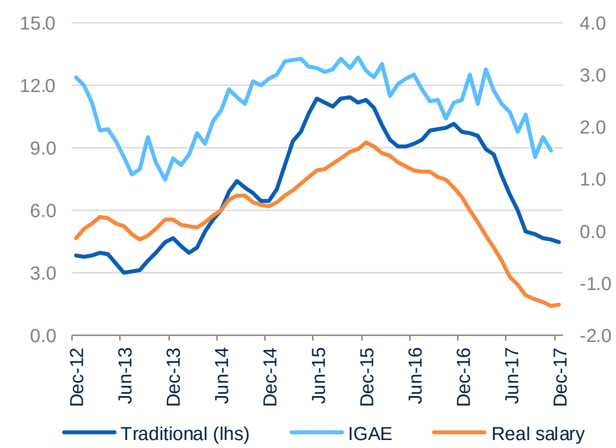
In December 2017, traditional deposits in commercial banks (sight deposits + term deposits) registered a real annual growth rate of 3.7% (nominal 10.7%). With this result, in 2017, the average annual real growth rate of traditional deposits was 5.6%, 3.9 percentage points (pp) lower than the 2016 average. During 2017, the real growth rates for traditional deposits remained below double digits (Graph 2b.1) and showed a downward trend, indicating reduced economic activity and the negative effect of higher inflation on household purchasing power and real wages (Graph 2b.2).

Graph 2b.1 Traditional deposits (sight + term). Real annual change, (%)



Source: BBVA Research based on data from the Banco de México and INEGI

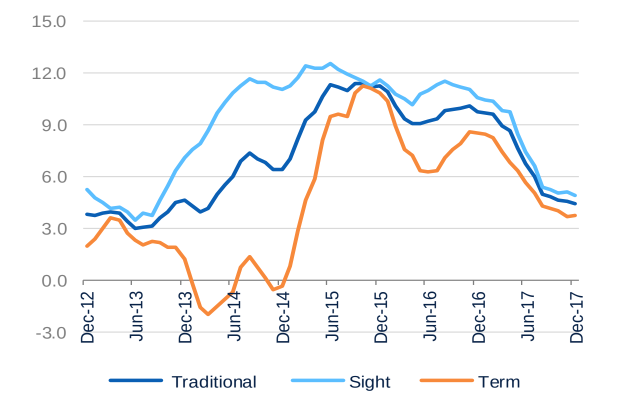
Graph 2b.2 Traditional deposits, IGAE and real salary. (Real annual change, moving average 6 months, %)



Source: BBVA Research based on data from the Banxico and INEGI

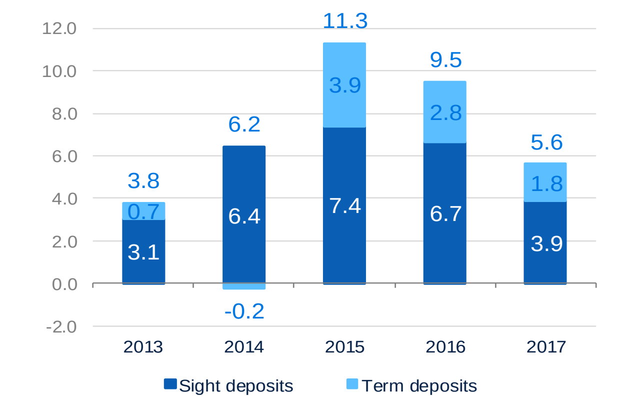
By type of deposit, both sight and term deposits showed a tendency to decelerate (Chart 2b.3); they also showed how the various economic indicators had evolved less favourably and how the expectations of companies and households had deteriorated. As in recent years, sight deposits (63.0% of traditional deposits) continued to have momentum, averaging a real annual growth rate of 6.2% in 2017. This result meant a contribution of 4.0 pp to the total growth rate. In the case of term deposits (37.0% of traditional deposits), their balance registered an average annual real growth rate of 4.7%, so that their contribution to the total momentum was equivalent to 1.8 pp. (Figure 2b.4)

Graph 2b.3 Traditional deposits by type of deposit. (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

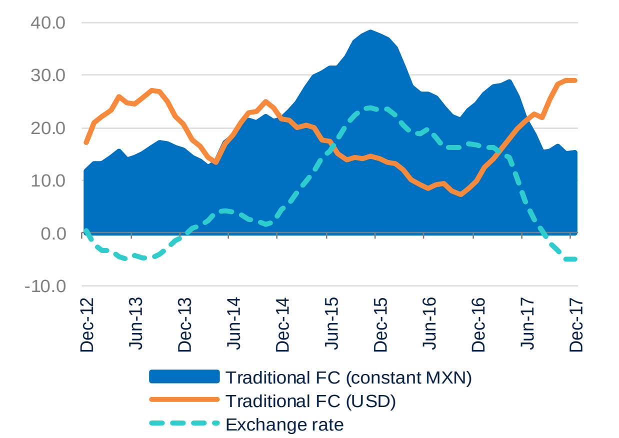
Graph 2b.4 Contribution to the average real growth of traditional deposits. (Percentage points (pp))



Source: BBVA Research based on data from the Banxico and INEGI

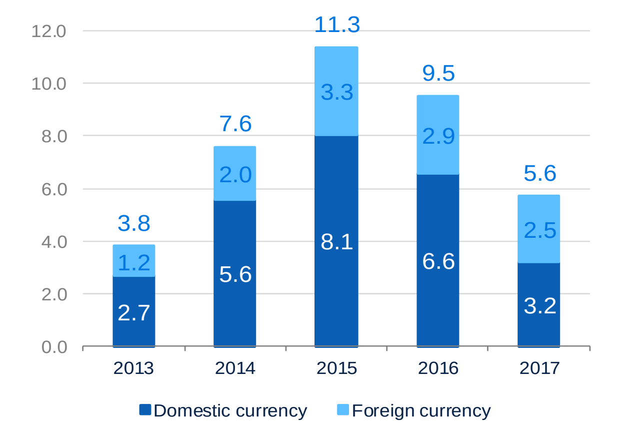
When broken down by currency, foreign currency (FC) deposits stand out; they increased their share of traditional deposits, up from 13.8% in 2016 to 15.5% in 2017. Contrary to previous years, when the main impulse of FC capture came from the valuation effect of the exchange rate, in 2017 the dynamism was based on the increase in balances denominated in dollars, a result in part of the capital repatriation programme, driven by the Ministry of Finance and Public Credit (SHCP), which was in force from January to October 2017[3].

Graph 2b.5 Traditional deposits in foreign currency (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.6 Contribution of traditional deposits to average real growth. (Percentage points (pp))



Source: BBVA Research based on data from the Banxico and INEGI

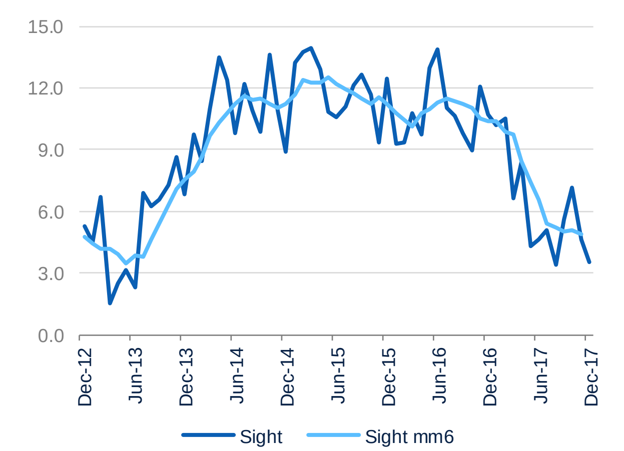
3: On 18 January 2017, the Ministry of Finance (DOF) published the "Decree to grant various administrative facilities in the area ofIncome Tax (ISR) relating to deposits or investments received in Mexico", under which natural and legal persons resident in Mexico or abroad with a "permanent establishment" in Mexico who had obtained income from direct and indirect investments held abroad, could apply the benefit of “capital repatriation”, to regularise their tax situation, if they returned the funds to the country before 19 July 2017. Subsequently, on 17 July, the deadline was extended to 19 October 2017.

In 2017, the uptake denominated in FC and valued in dollars grew in 2017 at an average annual rate of 25.1%. This dynamism was significantly greater than that registered the previous year (9.1%) and its performance managed to compensate for the effect of the cumulative appreciation of the exchange rate during the year (Graph 2b.5). Therefore, in its valuation in pesos, the uptake in FC grew by an average of 18.5% in real terms between January and December 2017. As a result of this dynamism, mainly generated by the capital repatriation programme[4], FC uptake contributed 2.5 pp to the total growth of 5.6% of traditional deposits (Graph 2b.6).

2b.2. Deposits by companies and individuals sustain the buoyancy of sight deposits

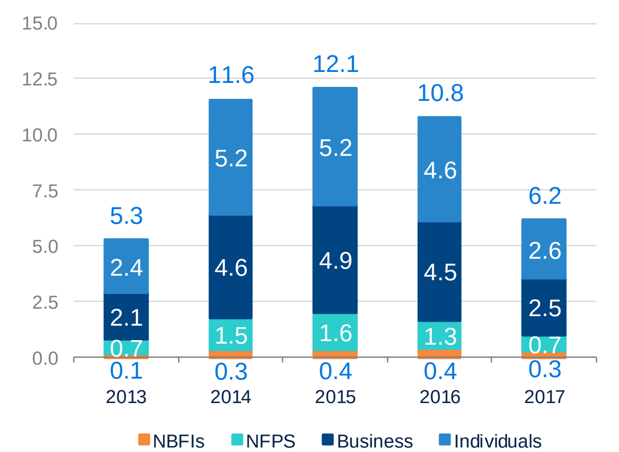
At the end of 2017, the balance of sight deposits registered a real annual growth rate of 3.5% (nominal 10.6%), less than half the real rate recorded in December 2016 (10.7%). With this result, in 2017, deposits payable on demand (DPD) averaged a real annual rate of 6.2%, lower by 4.6 pp than the average variation observed the previous year (10.8%). During the first four months of the year, DPDs managed to maintain a double-digit expansion rate, that gradually slowed down in the following months (Graph 2b.7). During the year, this buoyancy was supported by the evolution of the balances of individuals and companies, which contributed 2.7 and 2.5 pp to the average real growth rate, while the DPD of non-banking financial intermediaries (NBFIs) and the non-financial public sector (NFPS), contributed less, 0.7 pp and 0.3 pp respectively (Graph 2b.8).

Graph 2b.7 Sight deposits.
(Real annual change, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.8 Contribution of sight deposits to average real growth. (pp)



Source: BBVA Research based on data from the Banxico and INEGI

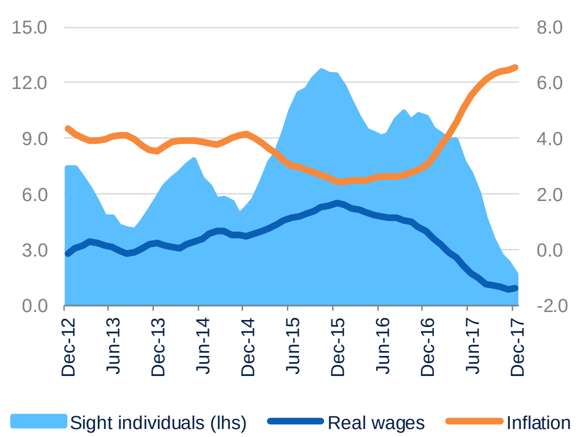
4: By 25 October 2017, the Tax Administration Service (SAT) estimated that around 345.4 billion pesos had returned to the country under the repatriation programme. This amount is equivalent to 7.4% of the average balance of traditional deposits in 2017.

Incomes of households and companies determine the performance of sight deposits by segment

Sight deposits from individuals (41.8% of total sight deposits) reached a real annual variation of 1.8% in November 2017 (nominal 8.6%), significantly lower than the 11.1% observed in the same month of 2016. These deposits therefore grew between January and November 2017 at a real average annual rate of 4.6%, 5.0 pp below the average real rate of 9.6% observed in the same period of 2016. The slowdown in DPDs reflected the deterioration in household income. During the year, higher inflation weakened real wages, which, on average, contracted by 1.2%, after the recovery of previous years. By weakening purchasing power, the increase in inflation may have encouraged households to use the resources in their deposit accounts to cover their increased expenses (Graph 2b.9).

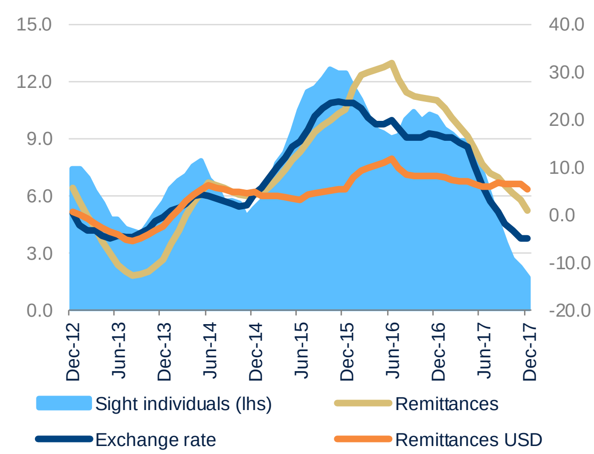
However, another source of income for households that were experiencing a considerable decrease in their growth rate came from remittances. In 2017, the cumulative flow of remittances valued in dollars averaged an annual growth rate of 5.6%, less than the 9.8% observed in 2016. Valued in pesos and in real terms, a more marked downturn was observed, since the average real growth rate for these flows plummeted from 27.8% in 2016 to 5.8% in 2017. This phenomenon was due to the decreased effect of exchange rate valuation, since in 2017 the average depreciation of this indicator was only 0.5%, significantly lower than that registered in 2016, when it reached an annual average of 18.2%. (Graph 2b.10)

Graph 2b.9 Sight deposits of individuals, real wages and inflation. (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.10 Sight deposits of individuals, remittances and exchange rates (Real annual change, mm6, %)

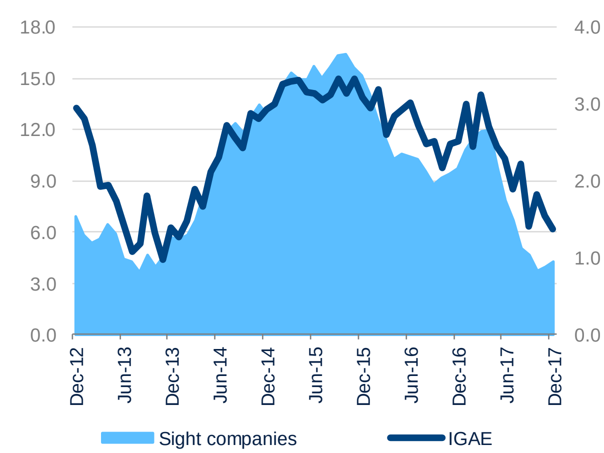


Source: BBVA Research based on data from the Banxico and INEGI

Sight deposits by companies (41.2% of total sight deposits) reached a real annual variation of 2.8% in November 2017 (nominal 8.6%), significantly lower than the 14.6% real growth observed in the same month of 2016. Sight deposits by companies therefore grew between January and November 2017 at an annual real rate of 6.2%, 3.5 pp below the average real rate of 9.7% reached in the same period of 2016.

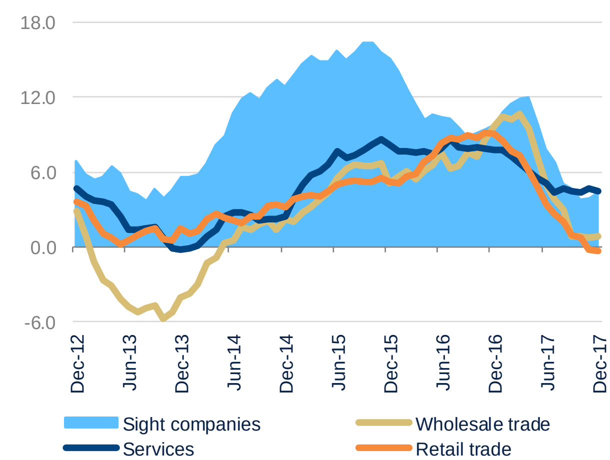
The 2017 decrease in business DPDs followed the gradual slowdown in economic activity recorded throughout the year. In 2017, the Global Indicator of Economic Activity (IGEA) averaged 1.9% between January and November, an annual variation of 1.9%, less than the 2.7% registered in the same period of 2016 (Graph 2b.11). During 2017 in particular, the dynamics of DPDs closely followed the behaviour of the indices for income from the supply of goods and services calculated by INEGI. These indices showed a partial recovery of domestic consumption during the first half of 2017, before it slowed down for the rest of the year (Graph 2b.12). In particular, between January and November of 2017 and in the same period in 2016, the average expansion rate of the wholesale trade income index dropped from 8.1% to 3.1%, retail commerce from 8.7% to 1.7% and services from 7.8% to 4.8%.

Graph 2b.11 Sight deposits by companies and IGAE (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.12 Sight deposits by companies, remittances and exchange rates (Real annual change, mm6, %)

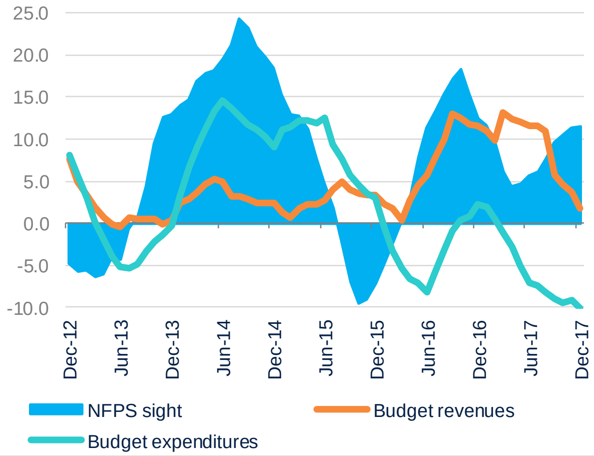


Source: BBVA Research based on data from the Banxico and INEGI

In November 2017, the sight deposit balance of the non-financial public sector (NFPS, 12.5% of total sight deposits) registered a real annual rate of 13.5% (21.0% nominal), lower than the real rate of 15.1% reached in the same month of the previous year. Although during five months of the year this segment managed to reach double-digit growth rates, which cushioned its deceleration to some extent, NFPS sight deposits averaged a real annual variation of 8.3% in 2017, 4.2 pp lower than the average real rate of 12.6% of 2016.

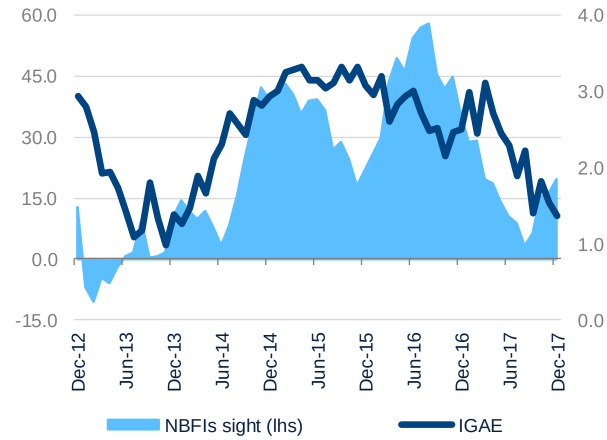
For the last two years, the balance of NFPS sight deposits has reflected the buoyancy of both public revenues and scheduled spending. Therefore, since mid-2016, the increase in budget revenues and the fiscal consolidation effort, which was reflected in a slower growth rate for scheduled spending, permitted an accumulation of NFPS funds until the first half of 2017. Since then, although the income growth rate has moderated, the containment of public spending sustained the momentum of the NFPS's on-demand balances (Graph 2b.13).

Graph 2b.13 NFPS sight deposits, revenues and budget expenditures. (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.14 Sight deposits of NBFIs and IGAE (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

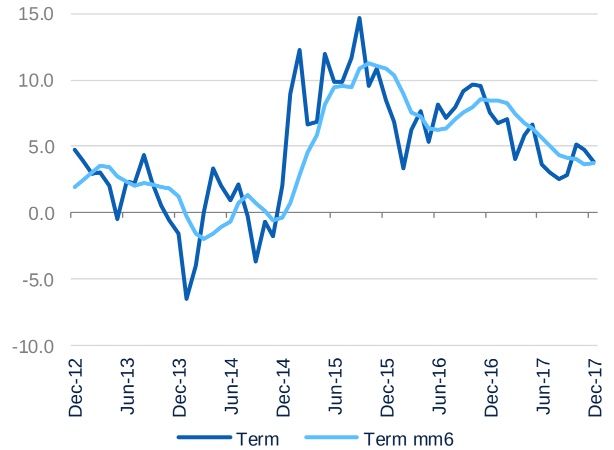
Lastly, sight deposits from non-bank financial intermediaries (NBFIs, 4.5% of total demand deposits) recorded a real annual rate of 5.5% in November 2017 (nominal 12.5%), lower than the real growth-rate 29.1% registered the same month of 2016. This reduced dynamism is even more noticeable if we compare the average real growth rates of their DPDs: between January and November 2017 the rate was 14.5%, less than a third of the 47.2% average observed in the same period of 2016. As in the case of companies, the dynamism of this type of deposits was related to economic activity, so its moderation was reflected in a reduced need for liquid balances with which the NBFIs could perform their work as intermediaries. (Graph 2b.14)

2b.3. Deteriorating expectations moderate the expansion of term deposits

At the end of 2017, the balance of term deposits registered a real annual growth rate of 3.9% (nominal 10.9%), lower than the real rate of 9.5% recorded in December of the previous year. With this result, during 2017, term deposits averaged a real annual rate of 4.7%, 2.7 pp lower than the average variation observed in 2016 (7.4%). Throughout the year, the growth rate of term deposits remained below double digits and, despite some monthly rallies, coinciding with the rise of the monetary policy reference rate (in February, March, May and June), the general trend in 2017 was for term deposits to slow down (Graph 2b.15).

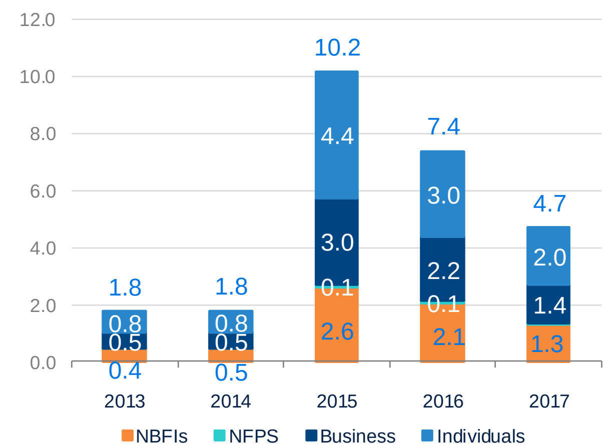
Therefore, during the year, the growth of term deposits was supported by the balances of individuals, companies and NBFIs, which contributed to an average real growth rate of 2.0 pp, 1.4 pp and 1.3 pp respectively, while NFPS deposits contributed almost nothing to the dynamism (less than 0.1 pp, Graph 2b.16).

Graph 2b.15 Term deposits
(Real annual change, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.16 Contribution of term deposits to average real growth. (pp)



Source: BBVA Research based on data from the Banxico and INEGI

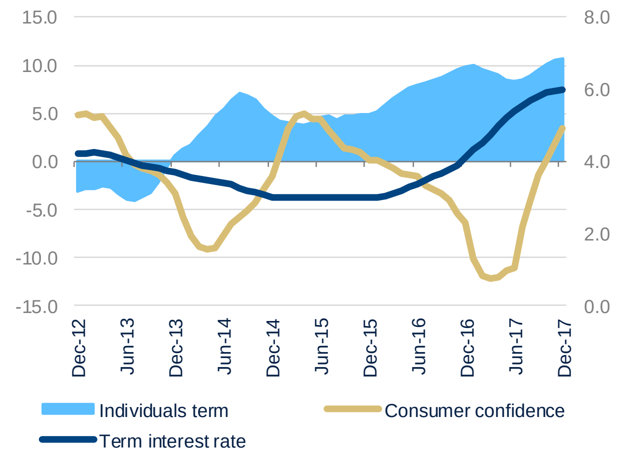
The term deposits of individuals responded to higher interest rates, while expectations dominated deposits by companies and IFNBs.

The term deposits of individuals (44.2% of total term deposits) reached a real annual variation of 10.6% in November 2017 (nominal 18.0%), 0.7 pp lower than the 11.3% observed in the same month of 2016. Despite this deceleration, private term deposits were the only segment of traditional deposits that performed better than in the previous year. On average, between January and November 2017, private term deposits grew at a real annual rate of 9.5%, 0.7 pp higher than the average real rate of 8.8% observed during the same period of 2016.

On the one hand, the buoyancy of this segment was the result of the increase in the interest rates paid on this type of deposit, which increased by 140 base points (bp) between December 2016 and December 2017, which made this type of savings more attractive. On the other hand, consumer confidence experienced a significant blow in 2017 (on average, its annual variation fell by -4.5%), reflecting the greater pessimism regarding the general economic situation and that of households, which might have encouraged more savings (Graph 2b.17).

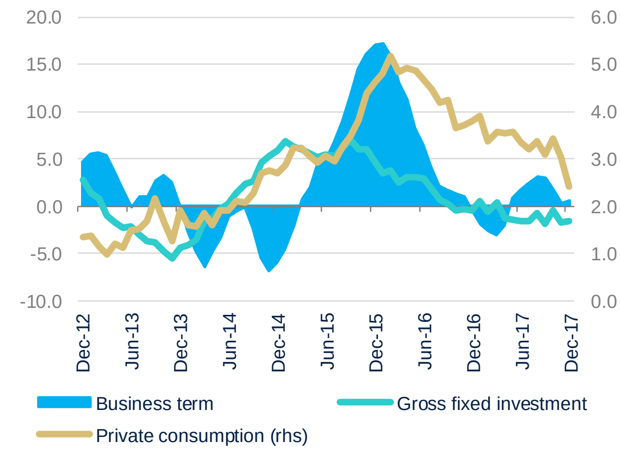
In November 2017, business term deposits (28.5% of total term deposits) reached a real annual variation of 7.2% (nominal 14.8%), reversing the -1.8% real contraction observed in the same month of 2016. With this result, between January and November 2017, business term deposits grew at an annual real rate of 1.2%, 2.6 pp below the average real rate of 3.8% averaged in the same period of 2016.

Graph 2b.17 Individuals term deposits, interest rate and consumer confidence index.
(Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

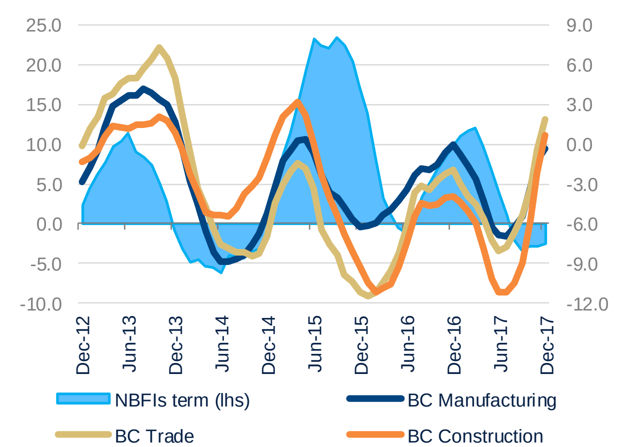
Graph 2b.18 Business term deposits, private consumption and gross fixed investment
(Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

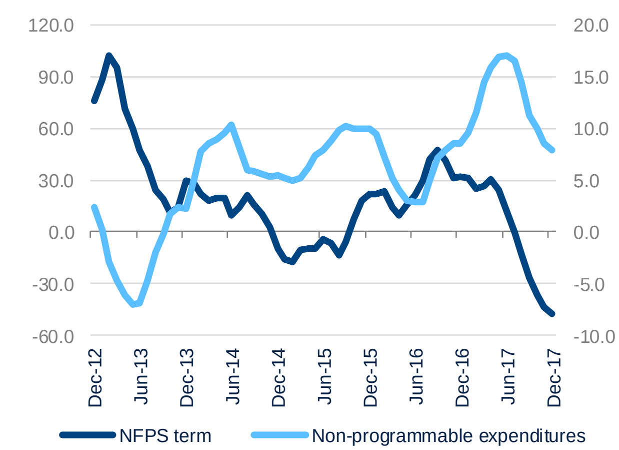
The decrease in business term deposits observed in 2017 may be associated with the performance of some aggregate demand indicators. On the one hand, the environment of uncertainty associated with changing trade relations with the US and their possible effect on national economic activity may encourage greater caution when considering investment projects (and building up reserves to finance them in the future). At the same time, private consumption gradually slowed down during the year, reducing the possible sources of income for companies and limiting their capacity to accumulate surpluses. (Graph 2b.18).

Graph 2b.19 NBFIs term deposits and business confidence indicators
(Real annual change, mm6,%)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.20 NFPS term deposits and non-programmable public sector spending.
(Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

NBFI term deposits (26.5% of total term deposits) showed a real annual variation of -4.2% (2.1% nominal) in November 2017, in contrast to the real growth of 12.5% registered in the same month of the previous year. This contraction continued throughout the year, although not as severely, because between January and November 2017 the average real annual growth rate was 0.9%, lower than the average rate of 3.4% for the same months of 2016. The performance of NBFI term deposits could be associated with the changes in the business confidence indicators for several sectors. Therefore, worsening expectations regarding the economic situation and higher interest rates could have reduced the demand for financing from other players, encouraging the NBFIs to build up their term deposit resources, while waiting until more favourable conditions increase the demand for their services (Graph 2b.19).

Finally, in November 2017, the balance of NFPS term deposits (0.8% of total term deposits) recorded a real annual variation of -55.4% (-52.1% nominal), the lowest observed that year and significantly lower than the real growth rate of 21.7% reached in November 2017. Looking at their performance for the year, the drop in this type of deposits by NFPSs looks less severe: between January and November 2017 term deposits had a real annual variation of -15.2%, lower than the average real rate of 24.5% for the same period of 2016. The evolution of this type of deposit may be associated with non-scheduled public sector spending since the contraction in longer term deposits coincided with a greater need for resources to cover the growth in these expenses (Graph 2b.20).

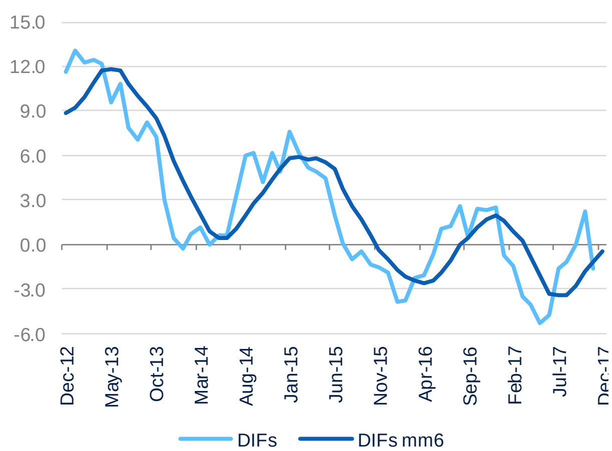
2b.4. Volatility and expectations of higher interest rates slow down the momentum of debt investment funds (DIFs)

At the end of December 2017, the real annual growth rate of the balance of the securities held by DIFs was -1.1% (nominal 5.6%). With this result, between January and December 2017, the real annual variation in the balance averaged -1.9%, lower even than the zero growth (0.0%) averaged in the same period of 2016. During 2017, the real annual variation remained in negative territory and only showed a slight recovery in September and October (Graph 2b.21). The episodes of volatility in financial markets and the expectation of higher interest rates (which could lead to losses) meant that other sources of savings and investment, such as term deposits or equity investment funds, became more attractive for the various players (Graph 2b.22).

During the year, the buoyancy observed in DIFs was based on the increase in bank security holdings, which, between January and December 2017, contributed an average of 7.1 pp to the real growth rate, a contribution that was more than compensated by the contractions in government security holdings, where a negative contribution reduced their growth by 4.9 pp. These were followed by private investments, which lost 3.2 pp off their growth, and other investment company shares, which lowered the total expansion of DIFs by 0.8 pp (Chart 2b.23).

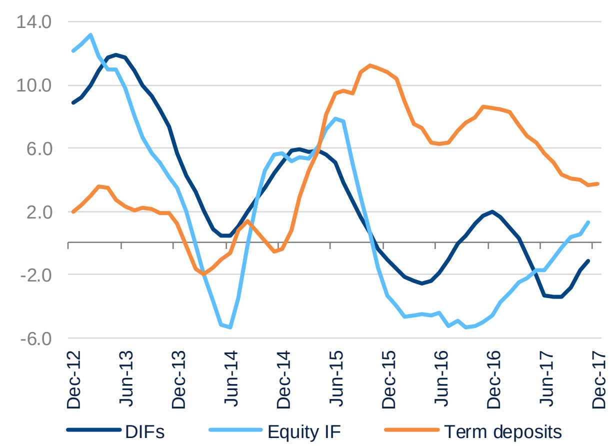
The aggregate of total deposits, which includes the balance of sight deposits, term deposits and DIF holdings, takes into account the evolution of the options for bank savings as a whole, regardless of the degree of substitution that exists between its components. Although DIFs are not really a source of deposits for banks, it is useful to group them with them in order to monitor the evolution of the assets that the various players channel into the financial system through these three savings options.

Graph 2b.21 Debt investment funds
(Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.22 Debt investment funds, term deposits and equity investment funds
(Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

By December 2017, the savings instruments aggregate (sight, term and FDIs) had grown by an annual real rate of 2.5% (nominal 9.4%), lower than the 7.7% of December 2017. In 2017, this indicator therefore averaged a real annual variation of 3.6%, 3.2 pp lower than the 6.8% average in 2016. When broken down, sight deposits accounted for most of this growth, contributing an average of 2.8 pp to the growth rate, while term deposits contributed 1.3 pp and DIF holdings subtracted 0.5 pp. Therefore, this aggregate also shows the slowing down of various indicators of the real economy and the worsening expectations for economic activity (Graph 2b.24).

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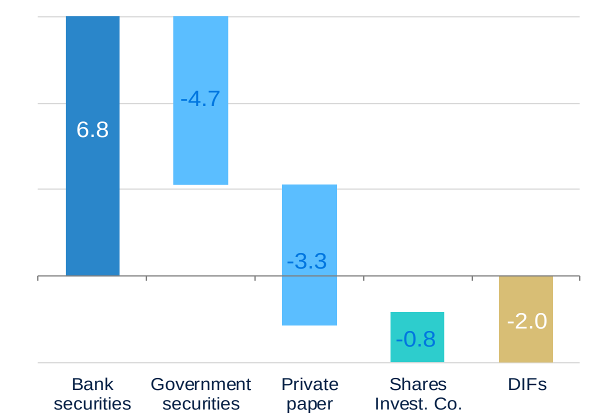
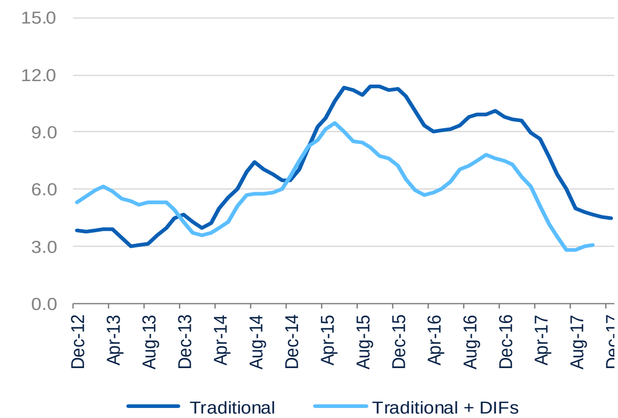
Graph 2b.23 Contribution to average debt investment fund growth rate in 2017



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.24 Traditional deposits and debt investment funds (Real annual change, mm6, %)

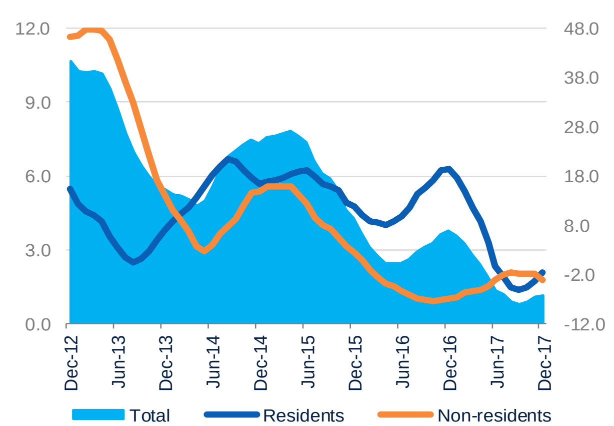


Source: BBVA Research based on data from the Banxico and INEGI

2b.5. The buoyancy of financial savings was supported by the voluntary savings of residents while the savings of non-residents stopped contracting

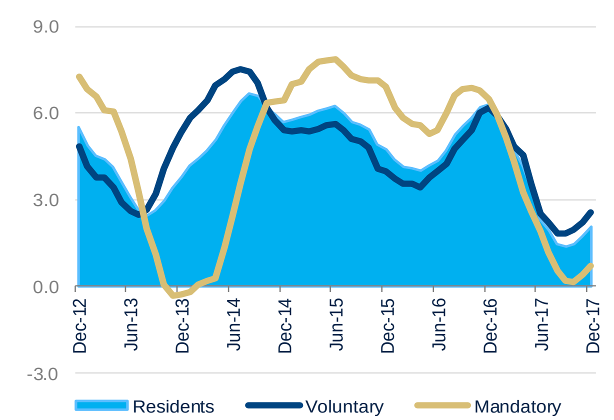
Financial Savings (FS) include all banking and non-banking savings instruments. This aggregate is composed of the amount of financial assets and securities held by individuals and corporations (residents and non-residents of Mexico) that are mediated by financial institutions. In this sense, this variable constitutes an overall indicator of the resources available for meeting the financing needs of various sectors of the economy (private, public and external).

Graph 2b.25 Total Financial Savings by residence (Real annual variation, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

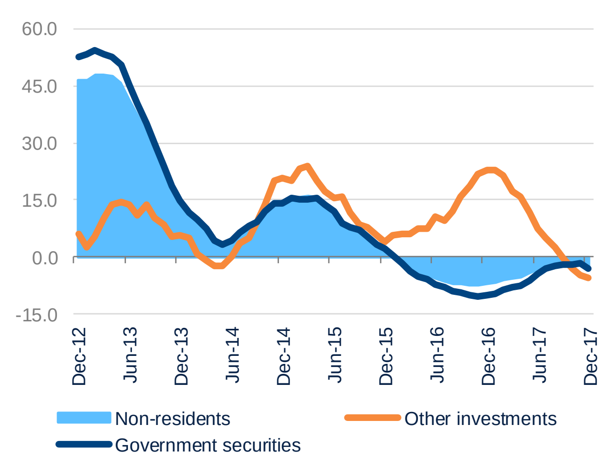
Graph 2b.26 Residents' financial savings (Real annual variation, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

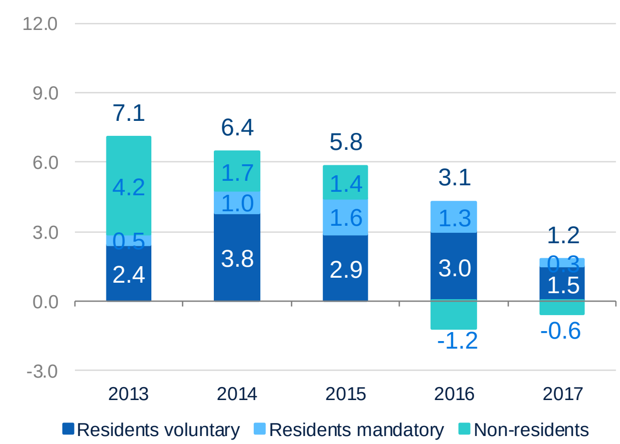
From December 2017, FS reached a real annual growth rate of 0.9% (nominal 7.7%), lower than the 4.0% recorded at the end of the previous year. Taking into the account the result for the last month of the year, in the period January-December 2017, the real growth rate of FS averaged 1.2%, also lower than the average registered during 2016 (3.1%). Therefore, the sources of financial resources clearly showed less dynamism as compared with previous years (Graph 2b.25).

Graph 2b.27 Non-residents' financial savings (Real annual change, mm6, %)



Source: BBVA Research based on data from the Banxico and INEGI

Graph 2b.28 Contribution of financial savings to average growth (pp)



Source: BBVA Research based on data from the Banxico and INEGI

During 2017, FS were supported by the dynamism of residents' savings (83.3% of the total), which grew in real terms by an average rate of 2.2% during 2017, less than the 5.3% registered in 2016. Within residents' savings, voluntary savings grew at a real average annual rate of 2.5% in 2107, lower than the average of 5.1% observed the previous year. Mandatory savings were also less dynamic, since their average real annual growth rate was 1.3%, well below the real rate of 5.9% averaged in 2016 (Graph 2b.26).

Non-residents' FS (16.7% of the total) contracted less and registered an average real annual variation of -3.2% in 2017, lower than the -6.4% drop of 2016. Regarding this last FS component, the drop in holdings of government securities by foreigners stands out. In particular, the contraction in Cetes holdings was not compensated by the growth in holdings of longer-term securities. The slowdown in non-residents' holdings also contributed to the lack of dynamism in other types of non-resident investments, which could reflect the reduced activity of Mexican issuers in foreign debt markets during 2017 (Graph 2b.27).

As a result of the changes described above, residents' voluntary savings contributed 1.5 pp to the average real growth rate of total financial savings, residents' mandatory savings contributed 0.3 pp and non-residents' savings subtracted 0.6 pp from the total dynamism. (Graph 2b.27).

2b.6. The recovery of momentum by deposits will depend on how much economic activity strengthens and on household and business income

During 2017, the various aggregates that measure the performance of savings in the economy (traditional deposits, total deposits and financial savings) slowed down as compared to the results of the previous year. Among the factors that explain this reduction in savings growth rates are the slowing pace of economic activity, increased inflation and its negative impact on household purchasing power, and an environment of greater uncertainty that has accentuated the pessimism about the evolution of the economy.

The different segments that make up the savings aggregates analysed reflected the slowing down of real variables and deteriorating expectations; however, there were two factors that contributed to making this decrease less pronounced. On one hand, the capital repatriation programme led to an increase in foreign currency deposit balances, reducing the downward effect that would have been caused by exchange rate valuation. On the other hand, higher term deposit interest rates contributed to households finding saving with this type of instrument more attractive.

Because the capital repatriation programme was temporary, from now on, greater dynamism for bank deposits will depend on a more vigorous performance by economic activity, the recovery of household purchasing power and a less uncertain environment leading to better expectations regarding the future performance of the economy.

3. Special Topics

3a. Risks limited to the financial system because of the possibility of the country's exiting NAFTA

3a.1. Introduction

Financial services play a fundamental role in the modern economy as they are the channel through which transactions are carried out, savings are mobilised, credit needs are met, capital is allocated to investment in productive projects and risk is transformed.

From the first years of trade liberalisation in Mexico, the importance of foreign participation in the financial sector was taken into account. In the first half of the nineties, the signing of the North American Free Trade Agreement (NAFTA), agreements with the World Trade Organization (WTO) and entry into the Organization for Economic Cooperation and Development (OECD) meant that the opening up of the financial sector was one of the commitments acquired. Therefore, an environment that relied on the extensive regulation of foreign investment by establishing a prohibition on or low participation of foreign capital was opened up, as can be seen in the substantial foreign participation in the financial sector. Proof of this is that by 2014, the subsidiaries of foreign entities abroad held 70.3% of the assets of commercial banking, 62.5% of insurers' stock, 32.5% of retirement fund managers' stock and 12.2% of brokerage firms' assets[5].

The commitments to the provision of financial sector services that were set by different international agreements have helped to increase investment and expand the Mexican financial system, develop more globalised financial markets, diversify investments for foreign investors, and even maintain the stability of the financial system of the countries that have invested in this sector in Mexico. Nevertheless, under recent circumstances, the renegotiation of NAFTA is one of the main factors causing the Mexican financial system and the economy as a whole to feel uncertain. This uncertainty came about as a result of the change in the USA government in 2016. We therefore consider it important to analyse some of the probable effects that a possible exit from the treaty could have on the Mexican financial sector. Although it is difficult to give a precise estimate of the impact that exiting NAFTA might have on the financial system, we can identify the options that Mexico would have and the effects that these would have in the likely event of NAFTA's being terminated. Our analysis in this article leads us to conclude that the direct impact on the Mexican financial system would be limited, since Mexico would be covered by its commitments to other international cooperation agencies (in particular, the WTO and OECD), which are similar to those

5: Report on the Financial System. Bank of Mexico, 2014. The information corresponds to June 2014. From 2015, information on the corporate structure of the financial system stopped being published in the annual reports of the central institute.

set out in NAFTA. Furthermore, given the current liberalisation of Mexico's financial system, it would be disadvantageous for the financial systems of the other member countries to reverse the liberalisation achieved by this sector.

The following section presents a summary of the commitments established by NAFTA for financial services. Sections three and four describe how they were embodied in financial regulations in Mexico; section five presents evidence on the contribution that NAFTA has had made to developing Mexico's financial system and the global financial markets; section six identifies the financial sector's alternatives to possible exit and the final section analyses the impact and some of the risks to the financial system arising from a possible breakdown of NAFTA.

3a.2. NAFTA principles relating to financial services

The articles in NAFTA regarding the financial system are contained in chapter 14, although some other general articles of the Treaty also apply. In this chapter, the principles that must be met are laid out: i) regulated financial institutions; ii) investment in financial institutions; iii) cross-border trade in financial services; and iv) financial regulators. The last of these sets out each country's commitment to ensuring that its regulations include the principles established in that chapter. The guiding principles are[6]:

1. **Access to the market or right of establishment** (**Art. 1403**). Each NAFTA country must allow individuals and companies from other NAFTA countries to establish financial institutions in their country and expand their operations there.
2. **Cross-border trade (Article 1404).** Two forms of this are set out:
    a. Supplier mobility. No NAFTA country may adopt any measure that restricts any type of cross-border trade in financial services (*standstill* obligation)
    b. Consumer mobility. The citizens of every NAFTA country can purchase financial services from any supplier in NAFTA territory. In addition, the three countries agreed to revise the agreement in 2000 to further liberalise insurance services.
3. **Equality of treatment.** Under NAFTA, the countries undertake to give financial institutions, investors and suppliers of cross-border financial services "national treatment" and "most favoured nation treatment".
    a. **National treatment (Art. 1405)**. Under similar circumstances, every NAFTA member country must treat investors and financial institutions as favourably as it does its own investors and financial institutions, in regard to the establishment, acquisition, expansion, administration, conduct, operation and sale or other forms of disposal.

6: They can be found at: http://www.sice.oas.org/Trade/nafta_s/CAP14.asp

b. **Most favoured nation treatment (Article 1406)**. Treatment no less favourable than that granted to investors, financial institutions or investor investments in financial institutions and cross-border financial service providers in any other country, under similar circumstances.

Having these two treatments means that the better option will be granted in any situation in which one of the two is more favourable. It also means that, if a member country recognises prudential measures from another member or non-member country, that country will give the other members the opportunity to demonstrate that there may be equivalent regulations, supervision and procedures, and similar treatment can be negotiated.

4. **New financial and data processing services (Art. 1407).** The member countries undertake to allow regulated financial institutions from any NAFTA member country to provide new financial services similar to those that the country allows its own institutions, under similar circumstances. The country may decide under what form the service may be offered and require authorisation for its provision, which can only be denied for prudential reasons. It also establishes that every member country must allow financial institutions from the other countries to transfer information into or out of the country when their business activities require it.
5. **Senior management and board of directors (Art. 1408).** No member country can compel the financial institutions of another member country to hire staff of any particular nationality for senior management positions. Nor may it require that the board of directors of a financial institution be composed of a majority greater than the simple majority of nationals or residents of that country or a combination of both.
6. **Investment**. The chapter refers to certain provisions that appear in other NAFTA articles on investment (Chapter 11). Among them are:
   a. Allowing investment-related transfers to move freely and without delay (Art 1109.1 and 1109.2), except in certain cases, e.g., bankruptcy, issuance of securities, infractions, etc. (Art. 1109.4)
   b. Compulsory purchase and compensation (Art. 1110). A NAFTA country cannot nationalise or expropriate, directly or indirectly, the property of an investor from a NAFTA country with national or most favoured nation treatment, except for public reasons. Investors must be compensated at market value, to be set and paid taking into account the moment, interest payments, currency, etc.
   c. Protection of confidential information (Article 1111)
   d. Resolution of disputes (Articles 1115 to 1138.
7. **Reservations and specific commitments.** These were established to include the existing differences in the legal regimes and provide certain concessions in the negotiations between the three countries. For financial services, two sets of reservations were established. The first consisted of reserving the right to maintain certain measures that did not comply with articles 1403 to 1408. For example, in the case of Mexico, foreign investment in development banking

institutions is not permitted. The second set of reservations includes specific exceptions, also for articles 1403 to 1408. This set included the terms and conditions under which Mexico would gradually open up its financial institutions to foreign investment (see Annex 1). In addition, certain specific commitments were established, mostly relating to the right of establishment. Mexico, for example, gave a commitment to allowing investors from other countries to establish themselves as Sofoles (limited scope financial institutions), with national treatment.

8. **Exceptions**. Member countries must not be prevented from adopting or maintaining special measures, for prudential reasons. These may include protecting investors, depositors, holders or beneficiaries of insurance, maintaining the soundness of financial institutions or ensuring the stability of the financial system. In this article, the measures taken for the purposes of monetary, exchange or credit policy are also excluded from NAFTA.
9. **Transparency.** The chapter also contains commitments relating to transparency (when adopting generally applied measures), handling personal data and confidential information (Article 1411) and resolving disputes (Arts. 1414 and 1415).

Financial regulation in Mexico encapsulated the definitions and principles of this chapter, as well as similar ones in other treaties, in the laws corresponding to each type of institution, which are briefly explained in the following section. [7]

3a.3. Regulation in Mexico on foreign investment in the financial system

Before signing NAFTA, the Foreign Investment Act (LIE, in Spanish) was the law that regulated foreign participation in the financial system. After signing NAFTA, the Mexican government, by undertaking to allow Financial Institutions (FI) from the USA and Canada to establish themselves, also initiated the process for opening up the financial system to foreign participation from other countries. Therefore, one of the first significant regulatory changes initiated by NAFTA was to establish rules for the majority participation of foreign capital through subsidiaries.

It must be noted that, initially, both the undertakings set out in NAFTA and the provisions of the regulations were somewhat restrictive. Firstly, the Treaty originally provided that, during a six-year transition period (January 1994 to 1999), subsidiaries would be subject to individual and market limits on the total capital base for each type of institution (Annex 1).[8] Secondly, the rules on foreign participation stated that in order to consider an FI a foreign subsidiary, participation by the foreign parent in at least 99% of the share capital was necessary. This meant in practice that foreign banks could not acquire Mexican FIs and turn them into their subsidiaries and instead had to establish themselves as completely new banks. It was not until the economic crisis of 1994 that these conditions became more flexible: the market-share limits for banks from NAFTA member countries were increased; the percentage share that a foreign FI had to maintain in a Mexican subsidiary dropped from 99%

7: Financial Group Regulation Act, Credit Institutions Act, Securities Market Act, Organizations and Auxiliary Credit Activities Act, Federal Bonding Institutions Act, Mutual Insurance Institutions and Companies Act, Investment Funds Act

8: The limits did not apply to certain intermediaries, e.g., securities specialists, bonded warehouses, mutual fund management companies, exchange agencies, surety companies and pension fund management companies.

to 51%; and the general limit of share ownership by foreigners of the capital stock of Mexican banks increased from 30% to 49%.[9] Around 1999, in addition to loosening restrictions on banking institutions, restrictions on foreign participation in the holding companies of financial groups and brokerage firms were eliminated. By 2001, the restrictions on investment companies and investment company operating companies had been eliminated and by 2006 so had those on financial leasing companies, financial factoring companies and limited scope financial corporations. Finally, the latest changes occurred within the framework of the financial reform of 2014, in which various articles of the LIE that restricted the participation of foreign capital in the financial system were modified, which meant a total opening up to foreign capital.[10]

Currently, two types of foreign participation in FIs established in Mexico are allowed: 1) directly, through the acquisition of a percentage of the ordinary capital stock; and 2) as a subsidiary. The laws applicable to FIs define a subsidiary as being a Mexican company authorised to operate (whether as a multi-purpose bank, financial group, brokerage house, insurance or surety institution, investment fund operator or auxiliary body), in which the majority of its capital is held by a foreign financial institution.[11] Under this definition, all foreign financial institutions that currently operate in the country are considered to be subsidiaries. It should be noted that only foreign financial institutions that are based in countries with which Mexico has agreements covering financial services can set up subsidiaries.

Therefore, all the laws state that these Subsidiaries will be governed by the provisions of the corresponding international treaties or agreements, and the Department of Finance and Public Credit (SHCP) will be the government entity "empowered to interpret, for administrative purposes, the provisions on financial services that are included in said treaties and international agreements" (Annex 2). This means that, if there is any reservation or specific commitment in the treaty, it will be the SHCP that establishes the corresponding operational mechanism.

For these subsidiaries, all the commitments set out in Chapter 14 of NAFTA have been embodied in Mexican regulation. However, we should point out that the provisions in these laws apply to all subsidiaries operating in Mexico, not only for those whose shareholders come from NAFTA member countries. This is because, in addition to NAFTA, Mexico has entered into similar agreements with other regions and countries, including the European Union, Israel, Bolivia, Chile, Colombia and Uruguay. In addition, following Mexico's accession to the OECD, the Mexican authorities agreed to review the treatment granted to non-NAFTA investors and to grant the benefits provided by NAFTA to these investors.

9: For more details, see Hernández and Villagómez (1997)

10: Before the reform, three types of foreign participation in the financial system were permitted: 1) participation in up to 49% of the capital stock of insurance and bond institutions, exchange houses, bonded warehouses, investment promotion companies and AFORES (pension fund managers); 2) in a percentage over 49%, with prior authorisation from the National Foreign Investment Commission (dependent on the Ministry of Economy), for securities rating agencies and insurance agents; 3) up to 100% under the affiliate regime.

11: A foreign financial institution is an entity incorporated in a country with which Mexico has concluded a treaty or international agreement that permits subsidiaries to be established in the country.

3a.4. Major commitments on free trade established in Mexican financial regulations

National treatment. All financial laws oblige the financial authorities to guarantee compliance with national treatment commitments in the terms laid down in the applicable international treaty or agreement. Similarly, subsidiaries are allowed to perform the same operations as national institutions, unless the treaty or agreement sets some restriction. This means that multi-purpose banks that are subsidiaries of foreign financial entities are subject to the same regulations as national multi-purpose banks.

Investment or right of establishment. Because of this right, the laws permit a foreign FI to invest in the capital stock of a subsidiary, as long as the subsidiary performs the same type of operations in the country in which it is incorporated and that 51% of the capital stock of the Subsidiaries consists of shares acquired by an FI abroad.

Regarding the investment principle, we should point out that all the laws allow for the sale and acquisition of subsidiaries, with prior authorisation from the regulator. When the acquisition is carried out by another foreign FI, it must acquire at least 51% of the share capital.

Foreign financial institutions may open representative offices in Mexico with prior authorisation from the SHCP, but these offices cannot act as financial intermediaries or promote the acceptance of funds by the company they represent. Foreign financial institutions without a retail presence cannot offer their services to clients resident in Mexico or have transactions with them.

Board of directors. The laws uphold the principles established in NAFTA and other treaties of not imposing the nationality of the board members or officials. Generally, the articles relating to boards of directors establish the minimum and maximum number of directors, who is responsible for appointing them, what requirements must be met by independent directors, and how often the board should meet. These principles are similar to those established by the same laws for non-Subsidiary entities. The only particular condition for Subsidiaries is that the majority of the board members and managing directors must reside in the country.

3a.5. Effects of NAFTA on the development of Mexico's financial system

NAFTA facilitated the entry of foreign banks into Mexico and thereby helped mitigate the effects of the 1995 crisis

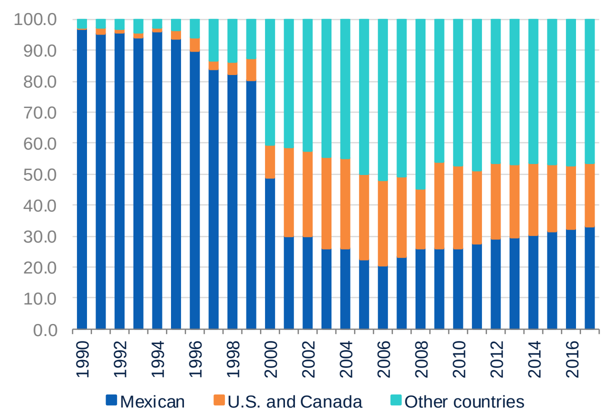
The entry into force of NAFTA coincided with a turbulent period for the Mexican banking system. Four years earlier, the Federal Government had begun a process of reforms to restructure the financial system, including the re-privatisation of commercial banks, which had been nationalised in 1982. However, the new bank administrations began to expand the credit supply without prudential policies and without a proper regulatory and supervisory scheme. Weak loan origination practices, coupled with the onset of the 1994 financial crisis, pushed the banking system to the brink of collapse and the government had to implement a series of measures to improve the levels of capitalisation and liquidity of the banking system[12]. One of these measures was to allow the participation of foreign banks, so that foreign investors could acquire troubled Mexican banks.[13] To do this, the foreign investment limits originally set out in NAFTA were relaxed.[14]

Although NAFTA initially kept strong restrictions on foreign investment in Mexican banks, relaxing the access conditions facilitated the entry of foreign banks into Mexico and helped reduce the effect of the crisis by allowing some banks to recapitalise. After the crisis, the consolidation of foreign banks in Mexico has had proven benefits for the system and its users.

Foreign banks have helped increase competitiveness and reduce banking services costs

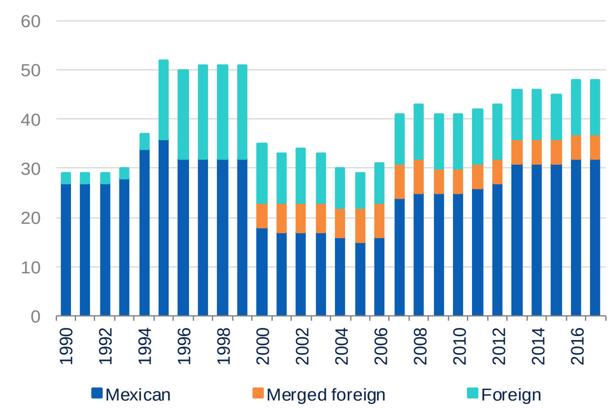
Between 1997 and 2004, foreign participation strengthened with the purchase of the system's main banks. In the opinion of Haber and Mussachio (2005), this was the third stage in the foreign entry into the market, in which the system assets in foreign hands went from 16.2% in 1997 to 73.8% in 2004 (Graph 1), although the number of foreign banks did not increase significantly (Chart 2). Haber and Musacchio (2005, 2010, 2013) found evidence that their entry during this period benefited consumers. For example, foreign banks have been better at monitoring borrowers, which has led to lower default rates and lower operating costs, which have been passed on to users. They observed this cost reduction in all the banks in the system, not only in those with foreign capital. This suggests that the entry of foreign banks exerted competitive pressures, forcing other banks to become more efficient.

Graph 3a.1 Assets of foreign banks as a % of Total System Assets



Source: BBVA Research based on data from CNBV and CONDUSEF

Graph 3a.2 Number of banks in the system



Source: BBVA Research based on data from CNBV and Haber, Mussachio (2010)

12: For more details, see Hernández and López (2001), Murillo (2002) or Hernández-Murillo (2007).

13: Providing the bank had a market share of less than or equal to 6%.

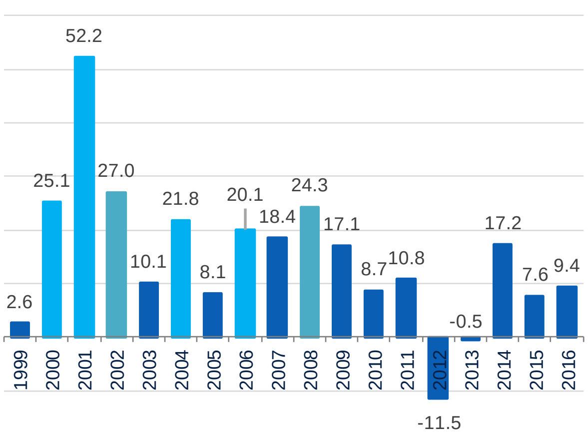
14: The maximum limit of capital that a foreign bank could acquire was increased from 9% (the level originally set by NAFTA) to 25%.

Other studies in several countries, including Mexico, coincide in pointing out that the entry of foreign banks increases competition (Demirguc-Kunt, Levine and Min, 1998) but they also found that the presence of foreign banks contributed to accelerating financial development by introducing new technologies and administration policies. Foreign banks are also more diversified, which makes them more resilient in periods of crisis (Peek and Rosengren, 2000). Finally, in a study in Mexico at the municipal level, Beck and Martinez-Peria (2010) found that, although foreign entry increased banking coverage in some municipalities during the period when the credit balance was reduced as a percentage of GDP, it was mainly limited to urban areas. As during the crisis, NAFTA was an important tool in this process, since it was the mechanism through which trade liberalisation and economic reform programmes were conducted. Similarly, NAFTA gradually removed trade barriers and boosted Mexico's trade with the USA and Canada, increasing it from 25% of GDP in 1993 to 51% in 2000. (M. Ayhan Kose, 2004).

Foreign investment in the financial system from NAFTA countries has contributed to increasing Direct Foreign Investment

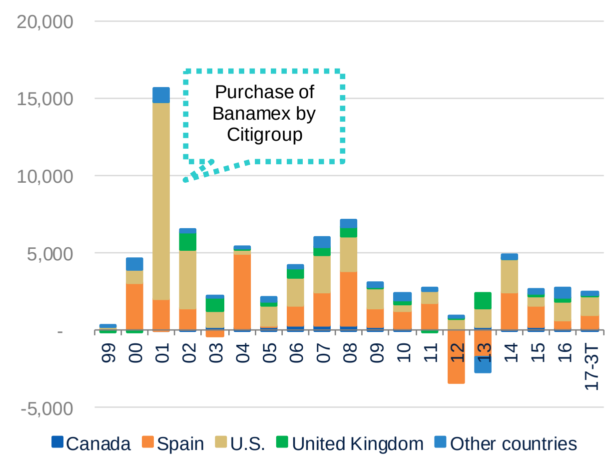
In the third and final consolidation stage of foreign banking in Mexico, Direct Foreign Investment in the financial services sector (DFIFSS) made a significant contribution to Total Foreign Direct Investment (Graph 3). In the years in which the mergers of the major banks took place, DFIFSS exceeded 20% of total DFI and in 2001, when Citibank acquired Banamex, DFIFSS rose to 52.2% of the total. Within the NAFTA framework, the United States of America (USA) and Canada have been two of the largest participants (Graph 4), with an investment flow of over 39 billion dollars in the period between 1999 and 3Q2017, an amount equivalent to 54.2% of DFIFSS and 8% of total DFI for that period.

Graph 3a.3 DFI in the financial services sector as a % of total FDI



Source: BBVA Research based on data from CNBV and Department of Economy

Figure 3a.4 DFI in the financial services sector by country. US$ millions

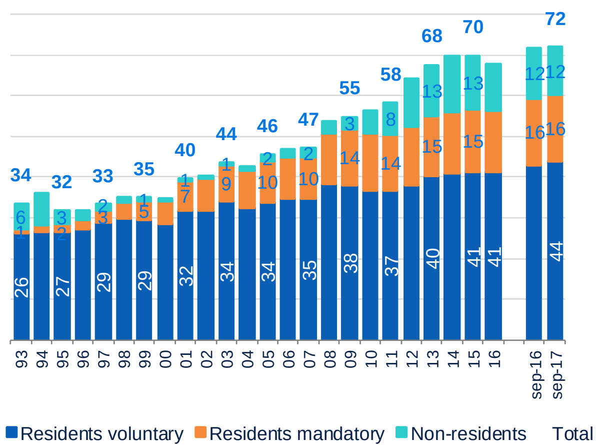


Source: BBVA Research based on data from CNBV and Department of Economy

The liberalisation of the financial system has contributed to increasing its depth and diversifying its resources under better credit conditions

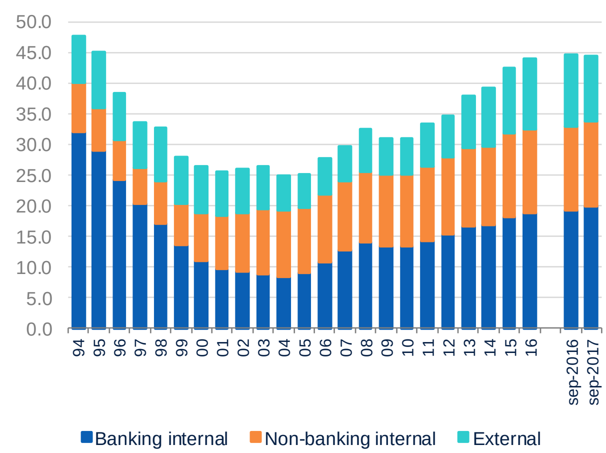
The liberalisation and deregulation measures, including the entry into force of NAFTA, caused several changes in the development of the financial system. The appearance of new players in the market, together with broader regulation, contributed to a deepening and diversification of both the sources and uses of financial resources. In regard to sources, in an environment in which greater stability and the recovery of economic activity were gradually achieved, starting in 1995, financial savings (M4a-ByM) continuously increased as a percentage of GDP and doubled their penetration over a 20-year period (from 31.8% in 1995 to 68% in 2016). It has also become more diversified, since, in addition to voluntary savings, participation in mandatory savings (SIEFORES) and the securities held by non-residents are noteworthy (Graph 5).[15]

Graph 3a.5 Financial savings as a % of GDP



Source: BBVA Research based on data from Banxico and INEGI

Graph 3a.6 Financing as a % of GDP



Source: BBVA Research based on data from Banxico and INEGI

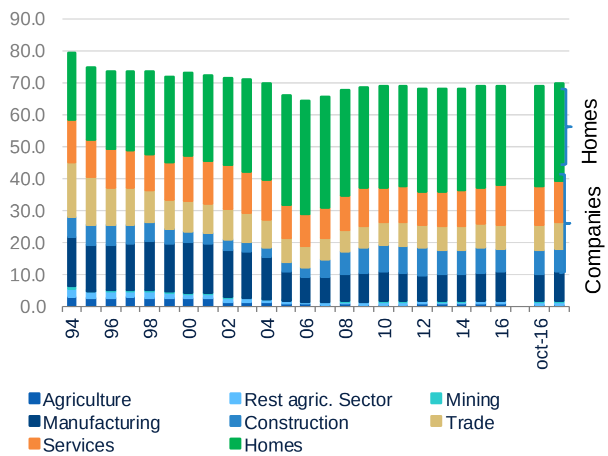
Regarding use, although the penetration of financing (measured with respect to GDP) has not increased at the same rate as its sources (Graph 6), the resources mediated by banking have diversified. Although between 1995 and 2005 there was less bank credit to the private sector, the share of credit to households increased, while business credit regained momentum after the 2008 crisis and continued to diversify, typically targeting the export sectors, such as manufacturing and commerce (Graph 7).

In a context of lower inflation, mediated financing was granted under improving conditions, as interest rates on loans granted by banks fell from 43.5% in 1990 to 15.0% in 2016. Similarly, the financing term increased, which can be seen in the government security maturity term (Graph 8). In 1990, it barely reached 6 months (191 days) while currently government

15: Voluntary savings have also included important players like Investment Funds, which represent around 17% of voluntary savings (7% of GDP).

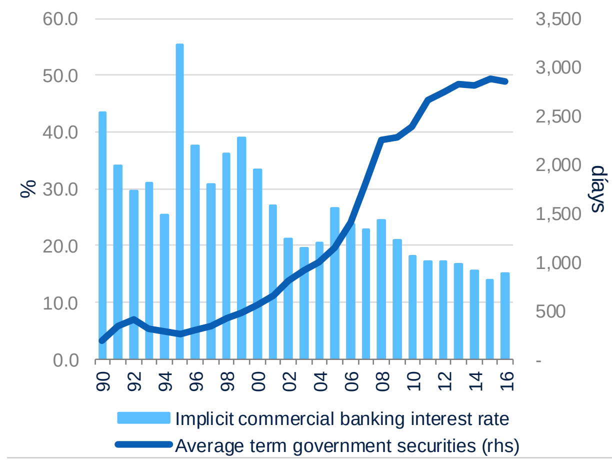
securities have an average term of 7 years (2,800 days). This lengthening of the government's maturity curve has contributed to an increase in mortgages and other medium-term loan products, for both households and businesses.

Graph 3a.7 Distribution as a % of the total commercial banking portfolio



Source: BBVA Research based on data from Banxico

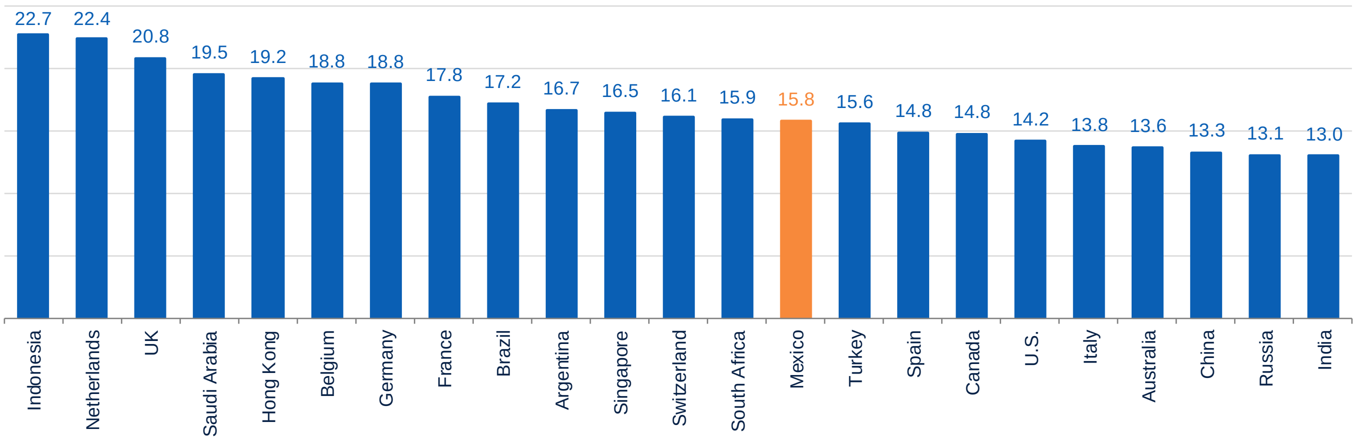
Graph 3a.8 Commercial banking interest rate (%) and government security maturity (days)



Source: BBVA Research based on data from Banxico

Lastly, it should also be noted that opening up the banking sector to foreign investment was accompanied by significant efforts to improve the regulatory and supervisory framework of the financial system so as to make it fit international standards. As regards prudential measures, the changes aimed at strengthening the banking system included the adoption of the Basel regulatory framework. This involved establishing solvency regulations, more stringent rules for capital and credit rating standards, as well as requirements for setting up reserves for loans, regulations on financial information and their disclosure, and applicable regulations including guidelines for general risk management and granting loans. All these measures contributed to consolidating the solvency and liquidity of the country's banking institutions, which are demonstrated by the fact that Mexico currently has one of the best capitalised banking systems in the world, with an average Capitalisation Index (ICAP) of 14.9 % in 2016 (Graph 9).

Graph 3a.9 Capitalisation index for selected countries (%)



Source: BBVA Research based on data from the World Bank and Banxico (data for Mexico)

3a.6. If NAFTA ends, there is the option of adhering to the WTO agreements or the OECD codes

The WTO General Agreement on Trade in Services (GATS)

As a member of the WTO, Mexico could benefit from the principles established in GATS (General Agreement on Trade in Services) if NAFTA ends. GATS comprises three elements: general obligations, annexes related to specific sectors and the schedule of commitments (List) by each country to the conditions to access to particular service markets. The agreement applies in principle to all services, including financial services.

Among the general obligations that apply directly and automatically to all members and services are the Most Favoured Nation Treatment (MFN) and Transparency obligations. Under MFN treatment, each member country is obliged to grant immediately and unconditionally to the services and service providers of any other member treatment that is no less favourable than that accorded to similar services and similar service providers from any other country. Unlike the General Agreement on Tariffs and Trade (*GATT*, which covers international goods trade), the National Treaty is a negotiable obligation. In regard to the obligation of Transparency, members must publish all relevant regulations and establish information points within their structures so that foreign companies and governments can obtain information on the provision of any service.

The specific list of commitments contains, for each sector and sub-sector of services, the conditions under which a country gives access to its markets (MA) and grants, where appropriate, national treatment (NT). For banking services and other financial services (excluding insurance-related services), Mexico only committed to a commercial presence: national treatment was consolidated for all services of that type that were included in the Mexico list, while access to institutions that offer financial services was generally consolidated at 40 or 49 percent of the common company capital, and each shareholding was limited to 5 percent of the share capital, or 20 percent if authorised by the SHCP. For insurance services, only market access and national treatment commitments were made for a commercial presence, except in the case of reinsurance services, for which national treatment for cross-border supply was consolidated. Access to the insurance services markets included on Mexico's list through a commercial presence was set at 40 percent of the paid-up capital (in the Uruguay Round, in general, market access was set at 30 per cent); the limit on each foreign investor’s participation was set at 10 percent, or at 20 percent if authorised by the SHCP.

It should be noted that access to the financial services market provided for under Mexican law is more favourable in practice than the commitments contracted by Mexico under GATS. As discussed in section three, amendments to the 1999 financial legislation liberalised the conditions for foreign investors, allowing them to invest in commercial banks, financial groups, securities brokerage firms and specialist stock market entities controlling up to 100 percent of their capital. With the 2014 reforms, DFI in insurance institutions, bond institutions, exchange houses, bonded warehouses, retirement fund administrators, credit information societies, credit rating agencies and insurance agents can now reach 100%.

Despite the above-mentioned provisions, foreign ownership has only been exercised without restrictions by having the legal status of a subsidiary of a foreign financial entity**.** The limits on foreign ownership of financial entities do not apply to subsidiaries of foreign financial entities based in countries with which Mexico has agreements that cover financial services and provide for the establishment of such subsidiaries. Eight of the free trade agreements that Mexico has signed have a chapter on financial services: NAFTA (on which other subsequent agreements are based), and the agreements with Colombia, Nicaragua, Peru, the Northern Triangle (El Salvador, Honduras and Guatemala), the European Free Trade Association, the European Union and Japan[16]. Financial institutions in other countries are only allowed minority shareholdings in national entities. However, because of its membership of the OECD, Mexico allows the establishment of subsidiaries of financial entities from all this Organisation’s member countries.

The OECD Liberalisation Codes

Mexico formalized its entry into the OECD in May 1994, becoming the 25th member of that organisation and the first emerging economy to be accepted. Amongst the commitments acquired on entry, adhesion to two codes relating to the operations and structure of the financial sector stands out: the Liberalisation of Invisible Transactions Code (LITC), which includes trade in financial services, and the Liberalisation of Capital Movements Code (LCMC), which includes both the entity in the member country and direct foreign investment. Both codes are legal instruments that set out rules of conduct

16: The updated list with the specific sections or chapters can be found at: http://www.sice.oas.org/DisciplinesExcel_s/servicios_s_excel.asp for member countries. However, they are not an agreement or treaty in the sense of an international law (as are, for example, WTO agreements).

The CLCCM applies to short- and long-term capital movements among residents of OECD member countries (for example, the issuance, purchase and sale of stocks, bonds and investment funds), money market operations, cross-border credit, loans and inheritance. In addition, it covers direct foreign investment. For its part, the CLCIO serves cross-border trade in services, and although it has broad coverage, it is not exhaustive. Among the main sectors covered are banking, financial, insurance and pension services.

By joining the CLCIO and the CLCCM (the Codes), member countries accept that they will not introduce new barriers. Reservations to the obligations of the Codes can only be reduced or eliminated, not increased or extended. This applies to all transactions covered by the codes, except for new obligations, some specific components of the CLCCM and the special derogations procedure that takes into account economic or financial difficulties. Once a restriction has been abolished, it cannot be reintroduced (the "standstill" obligation). Therefore, the status of the regulatory framework of a member country can only move towards greater liberalisation. In addition, each OECD member country is expected to guarantee the benefits of markets that are open to the residents of the other member countries, without discrimination. In this sense, the Codes do not permit the listing of reserves under the principle of most favoured nation.

On joining the OECD, Mexico undertook to extend to the member countries the NAFTA measures that liberalised establishing and directly investing in companies that offered financial services other than banking, insurance and brokerage. Mexico agreed to consider extending these benefits to financial institutions that were OECD members but subject to market share limits under NAFTA (see Annex 1) before 1998. So, since joining the organisation, it was expected that other OECD members (in addition to the USA and Canada) could enter the Mexican financial sector directly or indirectly through their North American subsidiaries.

The financial crisis of 1994 required Mexico to implement a comprehensive support package for the financial sector. The sector's recapitalisation needs led to an acceleration of the liberalisation scheme planned in NAFTA for its member countries. In practice, the legislation that allowed financial institutions resident in countries that were not in NAFTA but were members of the OECD to directly establish subsidiaries became operational in 2001.

It should be noted that all members of the OECD are also members of the WTO and therefore participate in the latter's agreements. In this context, GATS is the most relevant for the areas covered by the OECD Codes. Both GATS and the Codes promote the same objective: to promote liberalisation. However, they do so using different approaches. While GATS uses a "bottom-up" approach to define each country's individual commitments (each member selects the sectors to which it wants to commit), the OECD Codes take "top-down" approach, setting general standards that countries move closer to through reforms to their regulatory framework and the adoption of best practices. Therefore, the Codes are based on the underlying philosophy that, in the long term, liberalisation is in the best interest of a country that is liberated and is equally advantageous to that country and its trading partners. In this sense, countries are prepared to abolish restrictions without waiting for an immediate concession from other members.

Another important difference is that, in the case of GATS, an attempt was made to establish agreements through rounds of negotiation, providing mechanisms to resolve disputes and compensation methods. On the contrary, in the Codes, compliance with the standards is based on a commitment to the rest of the members (peer pressure) rather than on an agreed coercion mechanism. So, although the obligations and mechanisms of the member countries of the two organisations are different, they complement each other and point in the same direction: the complete liberalisation of the services they cover.

3a.7. The direct effect on the financial system would be limited

With a proper regulatory framework for its operation and efficient supervision, the liberalisation of trade in financial services can positively affect a country's income and growth, while the competition generated encourages financial intermediaries to improve their operations and become more efficient, competitive and innovative. The free movement of capital also offers the opportunity to better allocate productive savings and resources that are not limited by domestic savings. It also facilitates access to alternative sources of liquidity, reduces the investment risk by making it easier to diversify portfolios and provides signals to the international markets that help maintain discipline in economic policies.

The case of Mexico, thanks to its membership of NAFTA and the subsequent general liberalisation of the sector, is evidence of the benefits that trade liberalisation, together with proper prudential regulation, can contribute to the development of financial systems. Both the data and the empirical literature on the impact of foreign investment on the Mexican financial system prove that it has helped to increase the penetration of financial savings, diversify the sources of financing and deepen the financial market, with the result that households and companies can access more credit under better conditions. All this took place in an environment of solvency and sufficient capitalisation for Mexican banks.

Faced with a possible exit from NAFTA, Mexico's financial sector would have the option, as a member of the WTO, to avail itself of the commitments that its counterparts agreed to under GATS, using the controversy and compensation mechanisms, and adhering to the benefits specified in its particular list of commitments. However, it should be noted that the country's current legislation on foreign participation in the financial sector is more beneficial than the legislation that was in force at the time the list of commitments was drawn up, and it has evolved based on principles of general applicability (unilateral opening up), more in line with the OECD Codes.

In particular, the "standstill" obligation and the principle of non-discrimination that underlie the OECD Codes are important elements that contribute significantly to dissuading the three NAFTA members from reversing the liberalisation achieved in their respective countries' financial sectors. So, for Mexico, as for the rest of the OECD member countries, accepting the obligations of the Codes has meant adhering to a set of permanent liberalisation standards, confirming their commitment to a policy of open and non-discriminatory markets.

In this regard, it is worth noting that although several of the OECD members have faced financial crises of varying severity, some of them have not used the derogation clause provided for in the Codes (for example, Mexico in 1994 and Korea in 1997), which would allow them to suspend the liberalisation measures. Among the various reasons for not appealing to this clause is that such an action would be perceived negatively by the international markets. A country that re-imposed restrictions on previously liberalised operations would not only limit or make access to financing on the international markets more expensive, it might also delay the development and deepening of its own financial sector.

In this way, leaving NAFTA would have a limited effect on the structure of the financial sector and the variety of services it offers, given the degree of liberalisation that has already been achieved and the disadvantages for the parties of reversing it. Given the context of uncertainty and the prospects of its impact on other sectors of the economy, the possible effects would be more strongly linked to the reactions of international investors. Therefore, due to the environment of greater volatility and the possibility of a sudden reversal of capital flows, it can clearly be seen that the capital and liquidity levels of the Mexican banking system as a whole are reasonable and can face up to the impact of a variety of adverse scenarios. Moreover, due to their size, the type of transactions they perform or the regulations to which they are subject, the other participants in the financial system would not represent a vulnerable point for the country's financial stability.

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Annexes

Appendix 1. Liberalisation of the Mexican financial sector under NAFTA

The conditions that Mexico stipulated for financial institutions to enter the domestic market were based on the criteria of market shares for particular entities and aggregated shares for a group of them. In addition, a timetable was established for the process, starting in 1994 and including six years for a transitional scheme. Once this period had ended, the Mexican financial sector would no longer have restrictions. The gradual liberalisation scheme was aimed at credit institutions (banks and Sofoles), brokerage firms, insurers and leasing companies and was proposed as follows:

FTA: individual market shares at the beginning of the Treaty

Type of financial institution	Maximum individual capital that may be authorised. (Percentage of aggregate capital of all institutions of the same type)
Multi-purpose banking institutions	1.5%
Stock exchanges	4.0%
Insurance entities:	
o Damages branch	1.5%
o Life and illness branch	1.5%

Source: BBVA Research

FTA: Aggregate market shares by type of institution after one year of entry into force of the Treaty

The initial limits on each type of financial institution group are detailed in the table at the end of the paragraph. These initial limits will have equal annual increases until reaching the limits specified in the following table at the beginning of the last year of transition.

FTA: Aggregate market shares by type of institution after one year of entry into force of the Treaty

Type of financial institution	Percentage of total capital	
	Initial limit	Final limit
Multi-purpose banking institutions	8%	15%
Stock exchanges	10%	20%
Financial factoring companies	10%	20%
Financial leasing companies	10%	20%

Source: BBVA Research

The above limits were removed once the transition period ended. If the sum of the capital of the banking institution subsidiaries reaches 25% by the end of that period, Mexico has the right to freeze the percentage of the aggregate capital of the foreign financial subsidiaries at their current level once only for the four years following the end of the transition period.

Annex 2. Financial laws and agreements of the SHCP referring to provisions on subsidiaries abroad

Item	Credit Institutions Act (LIC)	Financial Group Regulation Act (LRAF)	Securities Market Act (LMV)	Insurance and Bond Institutions Act (LISF)	Investment Funds Act (LFDI)	General Organizations and Auxiliary Credit Activities Act
Definitions						
Subsidiary: A Mexican company authorised to organise and operate as... pursuant to the corresponding Law, when a Foreign Financial Institution or a Subsidiary Holding Company holds shares in its capital	To operate as a multi-purpose bank	To operate as any financial institution that, in the terms of this Act, may be part of a Financial Group	To operate as a brokerage house	To operate as an insurance and/or bond institution	To operate as an investment fund operator or distributor of investment fund shares	To operate as an auxiliary credit organization or exchange house
Foreign Financial Institution: A financial institution incorporated in a country with which Mexico has concluded a treaty or international agreement that permits subsidiaries to be established in the national territory.	✓	✓	✓	✓	✓	✓
Subsidiary Holding Company: A Mexican company authorised to be incorporated and operate as a holding company under the terms of the Financial Group Regulation Act, when a Foreign Financial Institution holds shares in its capital	✓	✓	✓	✓	✓	✓

Annex 2 (cont.) Financial laws and agreements of the SHCP referring to provisions on subsidiaries abroad

Item	Credit Institutions Act (LIC)	Financial Group Regulation Act (LRAF)	Securities Market Act (LMV)	Insurance and Bond Institutions Act (LISF)	Investment Funds Act (LFDI)	General Organizations and Auxiliary Credit Activities Act
Obligation of the Subsidiaries to be governed by treaties or international agreements						
The Subsidiaries will be governed by the provisions in the corresponding treaties or international agreements, ... and the rules for establishing subsidiaries issued by the Ministry of Finance and Public Credit, after hearing the opinion of... The Ministry of Finance and Public Credit shall be empowered to interpret, for administrative purposes, the provisions on financial services that are included in the international treaties or agreements referred to in the preceding paragraph, as well as to provide for their observance.	Article 45- B	Article 68	Article 161	Article 74	Article 63	Article 45 Bis 2
National treatment						
The financial authorities, within the scope of their respective powers, will **guarantee compliance with the national treatment commitments that may be assumed by Mexico, in the terms established in the applicable international treaty or agreement**. The subsidiaries may carry out the same operations as multi-purpose banking institutions, unless the applicable treaty or international agreement establishes restrictions.	Article 45- D	Article 71	Article 162	Article 76	Article 65	Article 45 Bis-4
Right of establishment: Equivalent operations in Mexico and abroad						
To invest in the capital stock of a subsidiary, **the Foreign Financial Institution must perform, in the country in which it is directly or indirectly incorporated**, in accordance with the applicable legislation, **the same type of operations as the subsidiary in question is empowered to perform in Mexico**... Subsidiaries in whose capital a Subsidiary Holding Company holds shares in accordance with the Financial Group Regulation Act are exempted from the provisions in the preceding paragraph.	Article 45-E	Article 72.- Only a Foreign Financial Institution that has been expressly authorised in the applicable international treaty or agreement, in accordance with the provisions of this Law and the rules referred to in Article 68 of this Law, may establish a Financial Group.	Article 163	Article 77	Article 66 Article 71. Subsidiaries may not establish branches or subsidiaries outside the national territory.	Article 45 bis -5 Article 45 Bis-10.- Subsidiaries may not issue subordinated obligations, except to be acquired by the Foreign Financial Institution that directly or indirectly owns the shares representing the capital stock of the issuing subsidiary. Subsidiaries will not be allowed to establish branches or subsidiaries outside the national territory.

Annex 2 (cont.) Financial laws and agreements of the SHCP referring to provisions on subsidiaries abroad

Item	Credit Institutions Act (LIC)	Financial Group Regulation Act (LRAF)	Securities Market Act (LMV)	Insurance and Bond Institutions Act (LISF)	Investment Funds Act (LFDI)	General Organizations and Auxiliary Credit Activities Act
Right of establishment: Integration of capital						
The capital stock of the Subsidiaries or of the Subsidiary Holding Companies will be made up of Class F shares, which will **represent at least fifty-one percent of said capital**. The remaining forty-nine percent of the capital stock may be integrated indistinctly or jointly by Class F and Class B shares. Class F shares may only be acquired by a Subsidiary Holding Company or, directly or indirectly, by a Foreign Financial Institution.	Article 45-G	Article 74	Article 165	Article 79	Article 68	Article 45 Bis 7
Investment: right of disposal, after authorisation by the corresponding authority						
Class F shares representing the capital stock of a Subsidiary may only be disposed of with the prior authorisation of... To carry out the transfer, the bylaws of the subsidiary whose actions are the object of the transaction must be modified, except in the case in which the transferee is a Foreign Financial Institution, Subsidiary Holding Company or Subsidiary.	Article 45-H The authorisation will be given by the CNBV with the approval of its Governing Board	Article 75 The authorisation will be given by the SHCP	Article 166 The authorisation will be given by the CNBV with the approval of its Governing Board	ARTICLE 80. The authorisation will be given by the CNSF with the approval of its Governing Board	Article 69 The authorisation will be given by the CNBV with the approval of its Governing Board	Article 45 bis -8 The authorisation will be given by the SHCP
Investment: right of acquisition, after authorisation by the corresponding authority						
Foreign Financial Institutions, Subsidiary Holding Companies or Subsidiaries may be authorised to **acquire shares representing the capital stock of one or more institutions**, provided that the following requirements are met: I. The Foreign Financial Institution, the Subsidiary Holding Company or the Subsidiary, as the case may be, must acquire shares representing at least fifty-one percent of the capital stock; II. If it is intended that the institution is to become a subsidiary, the bylaws of the aforementioned institution whose shares are subject to transfer must be modified.	Article 45-I The authorisation will be given by the CNBV with the approval of its Governing Board and after hearing the opinion of the Bank of Mexico	Article 76 The authorisation will be given by the SHCP	Article 167 The authorisation will be given by the CNBV with the approval of its Governing Board	ARTICLE 81. The authorisation will be given by the CNSF with the approval of its Governing Board	Article 70 The authorisation will be given by the CNBV	Article 45 bis -9 The authorisation will be given by the SHCP

Annex 2 (cont.) Financial laws and agreements of the SHCP referring to provisions on subsidiaries abroad

Item	Credit Institutions Act (LIC)	Financial Group Regulation Act (LRAF)	Securities Market Act (LMV)	Insurance and Bond Institutions Act (LISF)	Investment Funds Act (LFDI)	General Organizations and Auxiliary Credit Activities Act
			Board of directors			
Members: Minimum 5 and maximum 15, of which 25% must be independent	Article 45-K	NA	Article 168 (There is no minimum limit)	Article 82	NA	Article 45 bis 11
Appointment of directors: The Class F shareholder representing at least 51% of the paid-up capital stock shall appoint one half plus one of the directors and for each 10% of the shares in this class that exceed that percentage, he (or she) shall have the right to appoint one more director. The Class "O" shareholders shall appoint the remaining directors...	Article 45-K	Article 77	Article 168	Article 82	NA	NA
Restrictions on becoming an independent director: Employees or managers; shareholders who, without being employees, have power of command over the directors; partners or employees who provide advisory or consulting services and belong to the same group; customers, suppliers, debtors, creditors, partners, directors or employees of a client company, supplier, debtor or major creditor; employees of a foundation who receive large donations, etc.	Article 45-K	NA	NA	Article 82	NA	NA
Affiliates in which at least 99% of the securities representing the capital stock are owned, directly or indirectly, by a Foreign Financial Institution or by a Subsidiary Holding Company may freely determine the number of directors, which may in no case be less than five. A majority of the directors of a subsidiary and the managing directors must reside in the national territory.	Article 45-K and L	Article 77	Article 168 (There is no minimum limit)	Articles 82 and 83	Article 73.- The regulatory comptroller, managing directors of subsidiaries, the officials who occupy the position immediately inferior to that of the managing director and the persons in charge of carrying out the promotion and sale of shares of investment funds, must ... reside in the country.	

Source: BBVA Research

3b. The 2017 Delinquency Rate (IMOR) for the private sector credit portfolio was not been seriously affected by the prevailing macroeconomic environment

3b.1. Introduction

As mentioned in the section on the credit situation in this issue of the ***Mexico Banking Outlook***, in 2017 the growth rate of the three credit portfolios – consumers, housing and business – that commercial banks grant to the private sector decelerated significantly. In 2017, credit was in a macroeconomic context characterised by increases in reference interest rates, an increase in inflation, a contraction in real terms of the average wages of formal workers contributing to the Mexican Institute of Social Security (IMSS) and lower economic growth.

The prevailing macroeconomic environment of 2017 affected the evolution of the non-performing loan ratio that commercial banks grant to the private sector for a limited deterioration in the case of the consumer credit portfolio, and it did not affect the mortgage and business credit portfolios. The delinquency rates of these two credit categories developed favourably, decreasing throughout 2017.

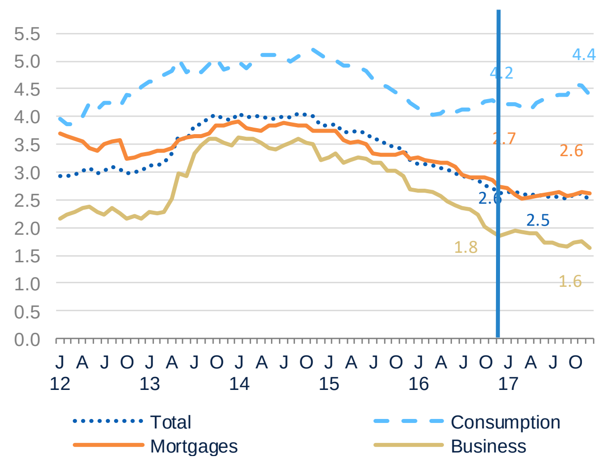
3b.2. Evolution of the Delinquency Rate (IMOR) for the private sector credit portfolio

The total credit portfolio consists of the performing loan portfolio (which represents the balances that are up-to-date on their payments, both of the original amount and the interest) plus the past-due loan portfolio (balances that have not been paid in the terms originally agreed). Analysis of the past-due loan portfolio provides an estimate of the quality or "health" of the financing granted and one of the most widely used indicators for this is the delinquency rate or IMOR.

IMOR is the ratio of the past-due loan portfolio over total credit (current credit plus past-due credit), and this indicator illustrates the deterioration suffered by the credit portfolio at a given time. It is worth mentioning that the average annual IMOR for 2016 and 2017 was, respectively, 2.9% and 2.6%. In other words, in 2017 the average annual IMOR fell, as did the growth rate of the total performing loan portfolio (graph 3b.1).

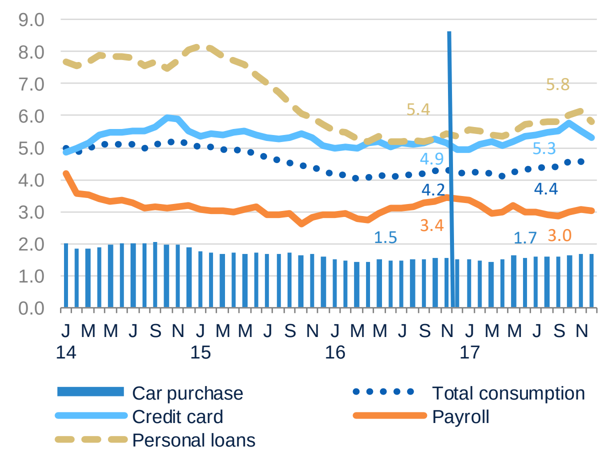
As regards the three categories of credit to the non-financial private sector, in 2016 and 2017 the IMOR averaged 4.1% and 4.3% for consumers; 3.0% and 2.6% for mortgages; and 2.3% and 1.8% for business, respectively. These figures indicate that the average annual reduction in IMOR out of total credit came from decreases in the mortgage and business credit portfolios, while the average annual IMOR for consumer credit increased. Also, the monthly evolution of the business credit IMOR was favourable throughout 2017, while for mortgages it remained stable. The consumer credit IMOR did not behave in this way (graph 3b.1).

Graph 3b.1 IMOR by type of portfolio: total, consumer, housing and business (%)



Source: BBVA Research based on data from the Banco de México

Graph 3b.2 Consumer credit IMOR by component (%)



Source: BBVA Research based on data from the Banco de México

However, it should be mentioned that the level of the IMOR for the total credit portfolio at the end of 2016 and 2017 did not change significantly. In December 2016 it was 2.6% and in the last month of 2017 fell slightly to 2.5%. Mortgage lending fell very slightly in that period, since at the end of 2016 this indicator was 2.7% and in December 2017 it was 2.6%. The same happened with the business IMOR: it went from 1.8% in December 2016 to 1.6% at the end of 2017 (graph 3b.1). In contrast, for consumer credit this indicator rose, and went from 4.2% to 4.4%.

The figures in annual average terms indicate that there was a more noticeable drop in the private sector credit portfolio IMOR from 2016 to 2017 (2.9% vs. 2.6%) compared to that observed between the closing months. The average consumer credit portfolio IMOR for 2016 and 2017 was 4.1% and 4.3%, respectively. In contrast, this indicator's average for mortgages was 3.0 in 2016, falling to 2.6% in 2017. Finally, the average annual business IMOR dropped from 2.3% to 1.8% from 2016 to 2017 (graph 3b.2).

The fact that in 2017 there was no deterioration or increase in the mortgage and business credit portfolio IMORs indicates that to understand the deterioration of the total credit portfolio, the analysis should focus on consumer credit. It is worth mentioning that the components or segments of this type of personal credit are the following: Credit Card loans accounted for 38.4% of the total performing loan balance in December 2017; Payroll 23.3%; Personal 21.0%; Car 12.6%; Other 3.5%; and Furniture 1.2%. That is, the previous figures indicate that the most relevant consumer credit categories are: Credit Card, Payroll, Personal and Car loans, which account for 95.3% of this type of credit. The remaining 4.7% is made up of the less important credit categories: Other and Furniture.

In 2017, the IMOR for the main categories of consumer credit was as follows: the IMOR for Credit Card and Personal loans increased during 2017; in addition, its level was higher than the IMOR for the entire consumer credit portfolio (graph 3b.2).

Likewise, in the aforementioned period, the Car Loan IMOR also increased while that for payroll credit was the only one that decreased slightly. In other words, in three of its four most important categories, consumer credit deteriorated throughout 2017.

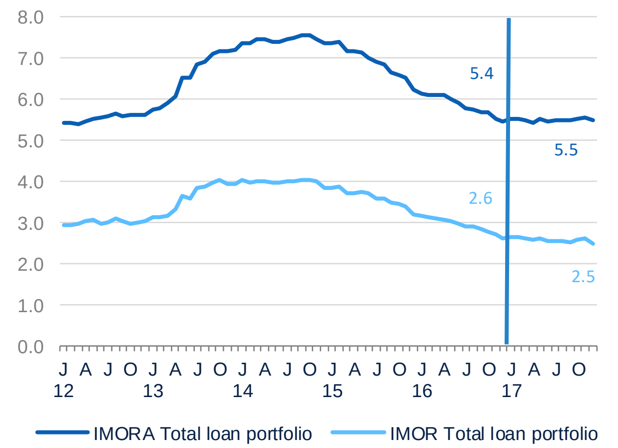
It is possible that the contraction of real wages that was persistently observed throughout 2017 was an important factor in explaining the greater deterioration of the consumer credit portfolio, as indicated by its IMOR. This may be possible if we consider that the annualised implicit monthly interest rate for this category of household credit did not show large variations from the value reported at the end of 2016, which was 27.9%. That is, although the implicit interest rate on consumer credit suffered some variation during 2017, it was limited and in December 2017 it stood at 28.2%, similar to the end of 2016. The stable performance of the implicit interest rate of the consumer credit portfolio indicates that the cost of financing this type of credit was not a factor that contributed to the deterioration of the consumer credit portfolio.

The previous point seems to indicate that, by generating a contraction in real wages and reducing the disposable income of those who have a loan to repay, higher inflation could have been a factor that not only reduced the demand for consumer credit, but also increased delinquency by reducing the repayment ability of households. For those segments of clients whose income or ability to pay is not associated with real wage behaviour because they are not salaried, higher inflation may also reduce their real income and their ability to pay, possibly to a greater extent if the income of this group of people increases in a smaller proportion than the average wages for contributors to the IMSS in nominal terms.

3b.3. Comparison of IMOR and Adjusted IMOR (IMORA)

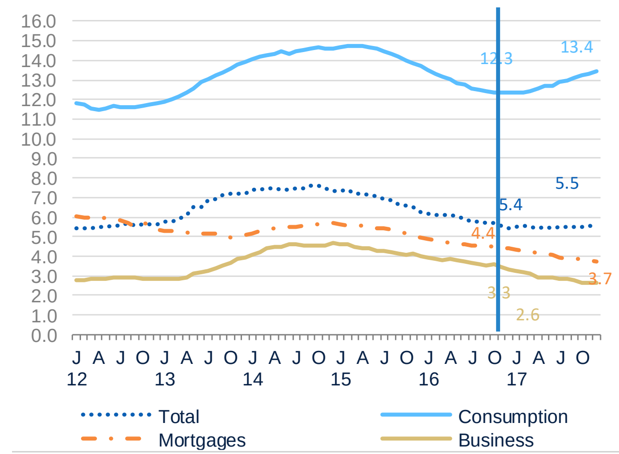
The aggregate IMOR and credit portfolios of commercial banks can be calculated using the figures for the performing and past-due loan portfolios published by the Bank of Mexico (Banxico). The Mexican Banking and Securities Commission (CNBV) also circulates an IMOR statistic, which is almost identical to the data published by Banxico. It is worth mentioning that the CNBV, unlike Banxico, also publishes data on Adjusted IMOR or IMORA. The IMORA is a credit portfolio delinquency indicator defined as the ratio between the past-due loan portfolio plus the accumulated reductions and write-offs of the last 12 months and the total credit portfolio plus the accumulated reductions and write-offs.

Graph 3b.3 Total credit portfolio: IMOR and IMORA (%)



Source: BBVA Research based on data from the Banxico and CNBV

Graph 3b.4 IMORA of the Total, Consumer, Housing and Business credit portfolios (%)



Source: BBVA Research based on data from the CNBV

That is to say, the IMORA, unlike the IMOR, also takes into account the information on the improvements (reductions and write-offs) from which a credit portfolio has benefited in the last 12 months. This means the IMORA shows both the current deterioration of the credit portfolio and that of the last 12 months.

The previous point allows us to see why the IMORA is more complete than the IMOR. For example, the average IMOR and IMORA from January 2012 to December 2017 for the total private sector credit portfolio were 3.3% and 6.3%, respectively (graph 3b.3). That is, the average level of the IMORA was 1.9 times, or almost twice, the level of the IMOR in the reference period. Moreover, both indices show a high correlation. In the period from 2012 to 2017, the correlation coefficient between the delinquency indicators was 0.96, meaning that these credit deterioration indicators perform similarly.

In 2016, the average annual IMORA for the total credit portfolio was 5.9%, and the average that this indicator registered in 2017 fell to 5.5%. However, if we look at the end-of-period IMORA, we see that in December 2016 the IMORA was 5.4% and at the end of 2017 it had increased slightly to 5.5%. That is, specifically, a minimum index deterioration can be seen in that period (graph 3b.3). In the case of mortgages, the average IMORA fell from 4.6% in 2016 to 4.0% in 2017. This indicator is also seen to weaken less when its December 2016 level (4.4%) is compared with the level recorded at the end of 2017 (3.7%). The same thing occurred with business credit, since its average IMORA in 2016 was 3.7% and in 2017 fell to 2.9%. Similarly, the IMORA reported in December 2016 of 3.3% fell to 2.6% at the end of 2017 (graph 3b.4).

On the other hand, the consumer credit IMORA did not perform as positively as that for mortgages and business credit. The average level that the consumer credit IMORA registered in 2016 was 12.8%, the same as in 2017. This was due to the fact that throughout 2016, the consumer credit IMORA gradually slipped from 13.5%, reported in January of that year, to

12.3% in December. From January 2017, this indicator began to rise. This IMORA therefore increased from 12.3% in December 2016 to 13.4% at the end of 2017. That is, the consumer credit portfolio IMORA also displays the deterioration observed in the IMORA during the period considered.

3b.4. IMORA and the consolidation of credit portfolios in recent years

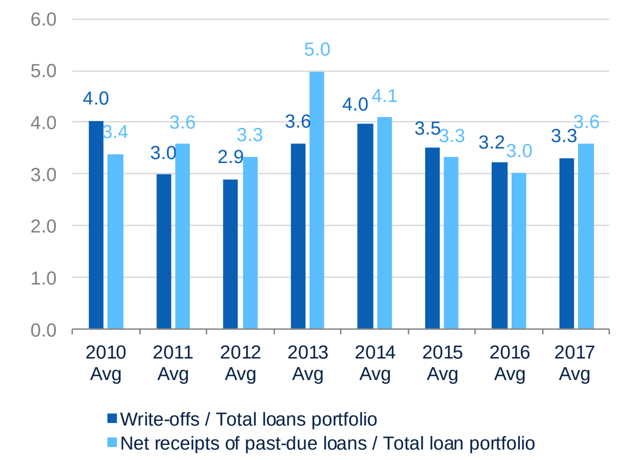
Another way of analysing the behaviour of the IMOR and IMORA is from the past-due loan portfolio (CV), considered in a given period t (CV_t), in a previous period (CV_{t-1}), plus the amount of the reductions and write-offs made in that current period ($R\&W_t$) and the amount of net receipts in past-due loans ($NECV_t$) in t. From this perspective, the current past-due loan portfolio is the result of the past-due portfolio for the previous period less the reductions and write-offs carried out in the current period plus the net inflows into past-due loans in the current period. That is: 1) $CV_t = CV_{t-1} - (R\&W_t) + NECV_t$.

Based on information from Banxico and the CNBV, there is monthly information on the past due portfolio or OLP_t, and OLP_{t-1}. The CNBV has monthly information on QC_t Resolving, we get the expression 1) $NECV_t$. In this way, the previous expression becomes: 2) $NECV_t = CV_t - CV_{t-1} + (R\&W_t)$

As discussed, the reductions and write-offs applied to the loan portfolio are concepts that allow us to calculate the amount of reductions or partial cancellations (reductions) of outstanding debt made by banks and the amounts cancelled because of the practical impossibility of recovering (write-offs) past-due loans. This limits the level of the past-due loan portfolio at a given moment. However, if one considers the data from the CNBV on the aggregate amount of annual reductions and write-offs for the three credit categories in real terms, the amount increased significantly between 2010 and 2017.

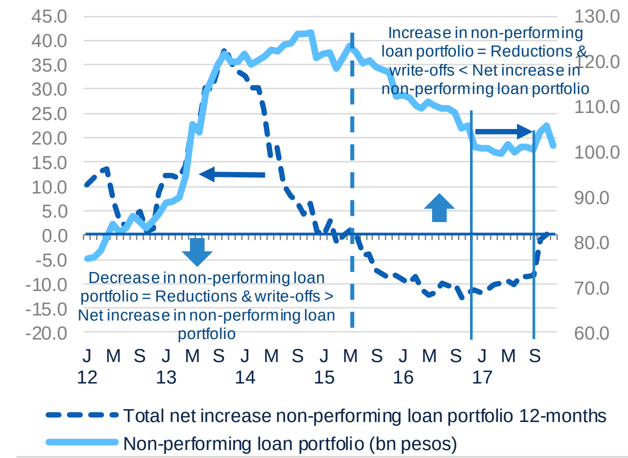
An alternative way to determine the relative importance of the reductions and write-offs is to consider their proportion of the total credit portfolio (graph 3b.5). It should be remembered that the reductions and write-offs correspond to the net inflows into the past-due portfolio item that have been made in the past and increase the latter’s balance.

Graph 3b.5 Reductions and write-offs and Net inflow into the past-due portfolio as a ratio of the Total Portfolio (%)



Source: Source: BBVA Research based on data from the CNBV

Graph 3b.6 Past-due portfolio and net inflow 12 into the past-due portfolio (Billions of pesos of Dec-17*)



*Net Inflow into the Past Due Portfolio (CV) = CV (t) -CV (t-1) + Reductions and Write-offs
Source: BBVA Research based on data from the CNBV

Net inflows into the past-due portfolio come mainly from the transfers made from the current portfolio to the past-due portfolio.[17] The outflows from the past-due portfolios come mainly from credit settlements and credits that are updated and transferred back to the current portfolio.

The amounts of the net inflows into the past-due loan portfolio, as well as those of the reductions and write-offs, in real terms, have also increased significantly from 2010 to 2017. When considering them as a proportion of the total credit portfolio, it can be seen that, with the exception of 2013, this ratio has not been very different from the one that registered by reductions and write-offs in those years (graph 3b.5).

However, for the past-due loan portfolio to be reduced, the reductions and write-offs must be greater than the net inflows into the past-due portfolio. According to the monthly data for the total past-due portfolio, starting in May 2015, the balance that was recorded began to fall to constant prices in December 2017 (graph 3b.6). In May 2015, the balance of the past-due portfolio was 123.5 billion of constant pesos (mmp) of December 2017 and this fell to 99.5 mmp in April 2017. After this, from that month to September, the balance of the past due portfolio remained stable, with no significant modifications. During this period, the reductions and write-offs of the past-due portfolio were greater than the new delinquent loans entering this portfolio. This made it possible to reduce the balance of the past-due portfolio in the above-mentioned period. However,

17: The definition that the CNBV establishes in its *Glossary of terms, Information Portfolio* on the past-due portfolio is the following: The past-due portfolio contains all credits that have been granted by any financial institution and have not been paid by the borrowers under the terms originally agreed.

the data for the last quarter of 2017 indicate that fewer reductions and write-offs were carried out in October and November than the actual amount of reductions and write-offs, which was modified in December.

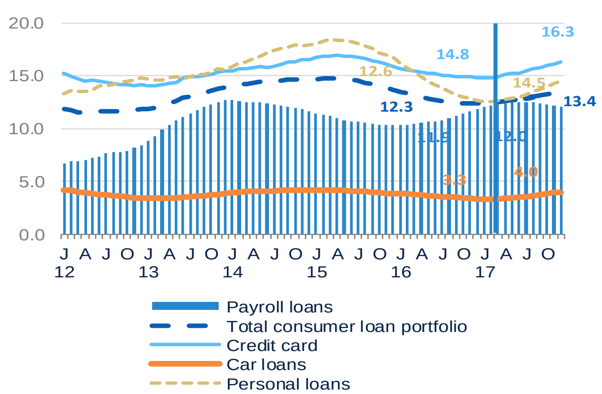
Thus, if, in the following months, the amount of the reductions and write-offs for the total credit is less than amounts corresponding to the inflows into the past-due portfolio, then the balance of the total past-due loan portfolio will increase, which will be seen in the IMOR and IMORA. In other words, the preceding figures indicate that the persistent reduction in delinquency rates requires that the reductions and write-offs be greater than the net inflows into the past-due portfolio. Notwithstanding the above, for this to be sustainable in the long term, the net inflows into non-performing loans must not increase too quickly, which means that the economic agents must not incur excess debt and must prevent their financial obligations from being greater than their ability to pay. Otherwise, the quality of the loan portfolio will deteriorate.

It should also be borne in mind that, to prevent the IMOR or IMORA from deteriorating, the macroeconomic environment must not be adversely altered in such a way as to restrict the economic agents' repayment ability, because of higher levels of inflation or because the level of economic activity falls.

3b.5. Consumer credit: evolution of IMOR and IMORA in 2016 and 2017

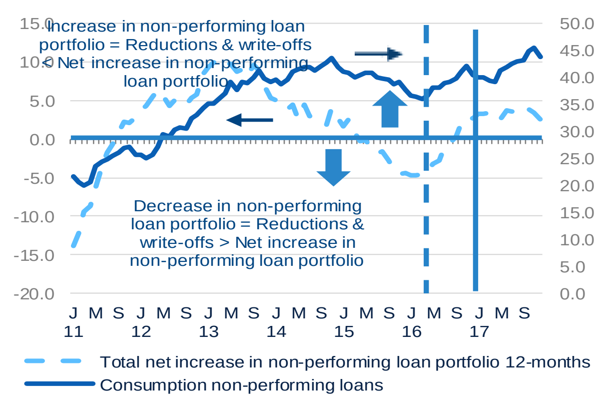
The average of the IMOR and IMORA indices for the total consumer credit portfolio between July 2016 and December 2017 were 4.3% and 12.7%, respectively (graphs 3b.1, 3b.4 and 3b.7). In other words, during that period, the IMORA for total consumer credit was almost 3 times that registered by the IMOR for this same category. In contrast, from the end of 2016 to December 2017, the IMORA for the major consumer credit categories rose (figure 3b.7). This was because the reductions and write-offs for this type of credit between September 2016 and December 2017 were lower than the net inflows into the past-due loan portfolio (graph 3b.8).

Graph 3b.7 Consumer credit: IMORA by category (%)



Source: BBVA Research based on banking data from the CNBV

Graph 3b.8 Consumer credit: Past-Due Portfolio and Net Inflows into the past-due portfolio (billions pesos of Dec. 17)



Source: Source: BBVA Research based on data from the CNBV

In this way, while the reductions and write-offs for mortgages continue to be less than the net inflows of this type of credit into the past-due portfolio, the balance of the loan portfolio will continue to rise due to consumer credit. Similarly, the consumer credit IMOR and IMORA will also increase as a whole and for their different categories.

3b.6. Consumer credit: ratio of reductions and write-offs to the balance of the past-due portfolio

On the other hand, according to figures from the CNBV, the balance of the past-due portfolio for total commercial consumer credit in December 2017 was 43.8 mmp. The cumulative amount of 12 months of reductions and write-offs in the total consumer credit portfolio at the end of 2017 was 97.6 mmp. These figures indicate that the accumulated amount of 12 months of reductions and write-offs during this period was 2.2 times greater than the balance of the past-due consumer credit portfolio.

The significant proportion of reductions and write-offs applied to the consumer credit portfolio is due to the fact that, in general, the vast majority of consumer credit categories do not have guarantees, as do, for example, mortgages. The use of warranties or collateral reduces the amount of the expected loss on the loan in case of default. For this reason, in the absence of this guarantee, the banks that grant this type of credit to households need to create greater reserves for credit risks than for guaranteed loans. According to current regulations, credit institutions must periodically evaluate whether the past-due credit should remain on their balance sheets or be written off[18]. The write-off consists of cancelling the unpaid credit balance against the preventive estimates for credit risks, which are recorded on the balance sheet. Moreover, the regulations state that financial institutions may eliminate from their assets loans that are 100% provided for.

3b.7. Mortgages: evolution of IMOR and IMORA in 2016 and 2017

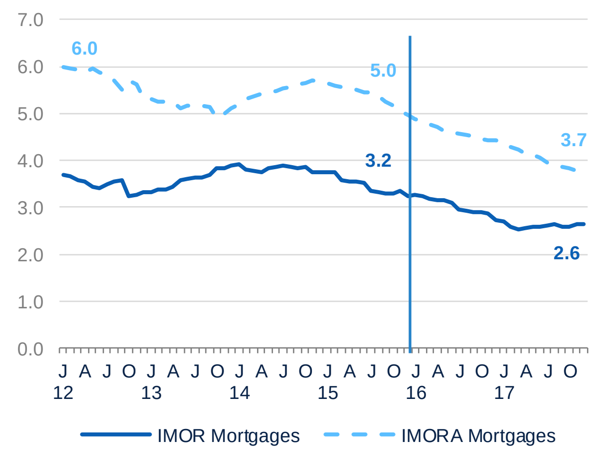
During 2016, the IMOR and the IMORA of the mortgage portfolio fell. In January of that year they stood at 3.3% and 4.9%, respectively, and in December they fell to 2.7% and 4.4%. On the other hand, the average value registered by the two indices in 2016 was 3.0% for IMOR and 4.6% for IMORA. For the period from January to December 2017, their average values fell to 2.6% for IMOR and 4.0% for IMORA (graph 3b.9).

As has already been mentioned, the reduction of the loan portfolio IMOR and IMORA in the period considered was only possible because the reductions and write-offs for this type of credit were greater than the net inflows into past-due loans. This began to happen in May 2015 and continued until December 2017 (graph 3b.10). In other words, this loan portfolio

18: According to the CNBV, a write-off refers to cancelling the credit when there is evidence that the formal collection procedures have been exhausted or it has been decided that it is impossible in practice to recover the credit. Unlike reductions, write-offs are not decided by the creditor, so that a creditor will continue to attempt to recover a loan that has been written off.

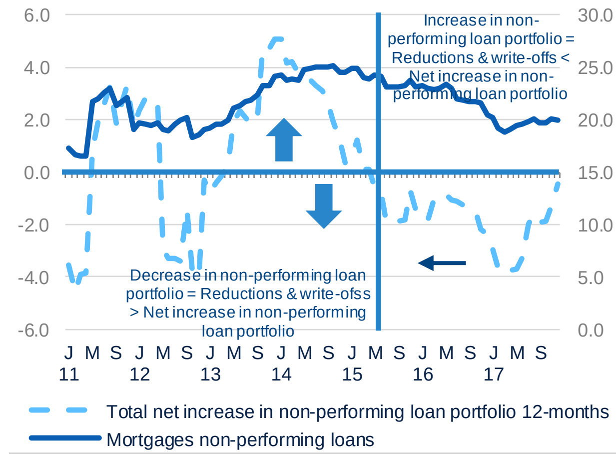
has been continuously cleaned up since the fifth month of 2015 and, while this continues to happen, the IMOR and IMORA for mortgage lending will continue to decline.

Graph 3b.9 Mortgages: IMOR and IMORA (%)



Source: Source: BBVA Research based on data from the CNBV

Graph 3b.10 Housing: Past-due portfolio and Net Inflows into the past-due portfolio (mmp of Dec. 2017)



Source: Source: BBVA Research based on data from the CNBV

It should be mentioned that the persistent rationalisation of the mortgage portfolio must be accompanied by prudent origination policies that properly measure the applicants' credit risk. It is possible that this occurred because the growth rate of the balance of the current mortgage portfolio, as already mentioned, slowed down significantly during 2017.

3b.8. Mortgages: ratio of reductions and write-offs to the balance of the past-due portfolio

Unlike consumer loans, in December 2017 the mortgage portfolio was almost 20.0 mmp and the amount of the cumulative reductions and write-offs over 12 months to that date amounted to 7.9 mmp. These figures give a ratio of the cumulative reductions and write-offs over 12 months of 40% of the past-due balance. It is much smaller than in the case of consumer credit. In other words, the ratio of reductions and write-offs to consumer credit at the end of 2017 was 223%.

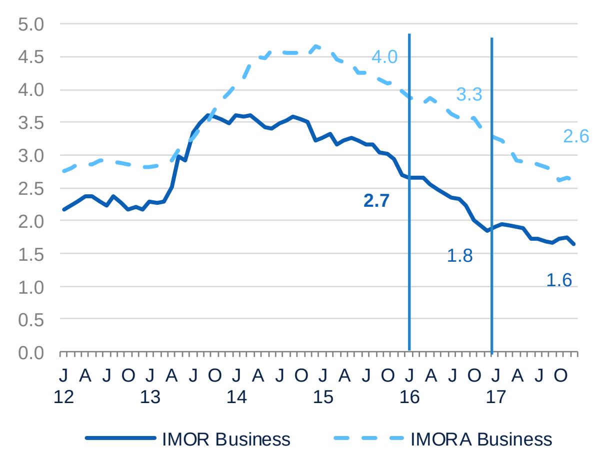
The past-due mortgage portfolio is smaller than the consumer credit past-due portfolio, and therefore, the ratio of their accumulated reductions and write-offs is smaller than for consumer credit; this is because mortgages require an initial investment by the borrower, plus some collateral. Whoever takes out a mortgage must first provide a down payment, which represents a significant amount of resources for the client that would be lost if the loan were to become delinquent. Also, those who take on mortgages know that their regular contributions to the loan in the future will be transformed into real estate that they will eventually own. In other words, anyone who fails to comply with a mortgage loses the down payment and the regular instalments already paid. On the other hand, anyone who fails to pay a consumer loan (except in the case of car loans) usually does not incur significant costs because there was no initial payment or any collateral lost. In this case, anyone who stops paying a consumer loan faces a cost to his or her reputation of appearing in the credit bureau file with a reference to this event.

3b.9 IMOR and IMORA of Business Credit in 2016 and 2017

In 2016, the average value of the business credit IMOR and IMORA was 2.3% and 3.7%, respectively. In 2017, this average value fell to 1.8% for IMOR and 2.9% for IMORA. It is worth mentioning that the worsening situation of the business credit portfolio as seen in the two indicators began to slow down in August 2015 and continued for almost two and a half years. Therefore, in December 2017, the IMOR and the IMORA of the business credit portfolio to companies were 1.6% and 2.6%, respectively (graph 3b.11).

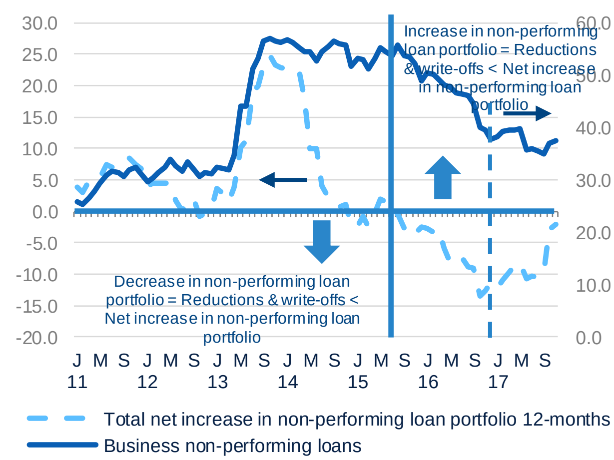
The business credit portfolio worsened less because the balance of its past-due portfolio dropped consistently from July 2015 until the end of 2017. As in the case of mortgages, this is because reductions and write-offs of past-due loans were systematically higher than net inflows into non-performing loans during this period (graph 3b.12).

Graph 3b.11 Business Credit: IMOR and IMORA (%)



Source: Source: BBVA Research based on data from the CNBV

Figure 3b.12 Business Credit: Past-due portfolio and Net Inflows into the Past-due Portfolio (mmp of Dec-17).



Source: Source: BBVA Research based on data from the CNBV

Perhaps the important point in the case of company credit is that the net monthly inflows into non-performing loans remained relatively low, which prevented them from overtaking the reductions and write-offs during the twelve months. For example, in 2016 the monthly average of net inflows into non-performing loans was 0.9 mmp, and in 2017 that average almost doubled, increasing to 1.7 mmp. However, the higher average level of net inflows into past-due business loans in 2017 may have been due to the lower economic activity growth rate recorded in the first eleven months of 2017 as compared to 2016 and to the increase in the interest rates affecting this type of credit.

On the other hand, since the level of cumulative reductions and write-offs over the 12 months was greater than the level of net inflows into past-due loans, the balance of the past-due business credit portfolio fell. The latter is what made it possible for both the business credit IMOR and IMORA to drop (figure 3b.12).

3b.10. Business credit: ratio of reductions and write-offs to the past-due portfolio balance

In December 2017, the balance of the past-due business credit portfolio was 37.9 mmp, while the reductions and write-offs for the 12 months of that period amounted to 18.8 mmp. In other words, the reductions and write-offs in the past-due portfolio balance amounted to 49.7% of the past-due portfolio outstanding balance of loans to firms. It should be borne in mind that the business credit portfolio is the largest of all; in December 2017 it was 1.4 times greater than the aggregate balances of the total consumer credit and mortgage portfolios. In addition, as a ratio of the sum of the past-due consumer and mortgage portfolios at the end of 2017, the balance of the past-due business credit portfolio was 59.4%. In other words, the company credit portfolio is the largest and is also the one with the lowest delinquency rate. This means that a large proportion of the improvement in the IMOR and IMORA indices for the non-financial private sector loan portfolio stems from the favourable performance of business loans in terms of preserving a high-quality loan portfolio, which is reflected in the low delinquency rates.

On the other hand, it should be mentioned that, according to the CNBV, towards the end of 2017, 20% of the balance of the total portfolio of loans granted to businesses by commercial banks had gone to SMEs, 72% to large companies and 8 % to trusts. However, in that month, 56.2% of the balance of the past-due business credit portfolio came from SMEs, 36.4% from large companies, and the remaining 7.4% from trusts. In other words, the biggest proportion of past-due credit lies with the SME segment, although it only represents 20% of the total loan portfolio. This figure may indicate that, in comparison with larger companies, the quality of this group’s credit portfolio could have been affected to a greater extent by the increase in interest rates and the country's less buoyant economic activity.

3b.11. Conclusions

In 2017, the different categories of bank credit to businesses and households (consumer and mortgages) grew much more slowly. This occurred in a deteriorating macroeconomic environment (higher inflation, higher interest rates and lower GDP growth) compared to 2016. Similarly, this lower growth of bank credit occurred without its credit quality indicators (IMOR and IMORA) showing significant symptoms of deterioration. Furthermore, in the case of mortgages and business credit, the risk indicators were reduced or did not show large variations. Only in the case of consumer credit did either the IMOR or IMORA rise.

It is worth mentioning that the slower growth of the three bank credit portfolios is possibly linked with greater caution on the part of borrowers and to stricter origination or granting criteria for new loans from banking institutions. Moreover, on this last point, the Bank of Mexico's *2017 Financial System Report* states that "In part, the good performance of the bank's delinquency rates is attributable to the fact that the origination criteria for loans have not been relaxed in recent years". Therefore, insofar as the above points are true, in the first case, the potential clients of banking institutions avoided taking out loans that they could not pay in a timely manner. In the second case, the banks sought to reduce their exposure to risk by not relaxing their criteria for granting loans.

As long as inflation falls and remains at low levels, economic activity grows faster and the interests rates of loans lower, then the macroeconomic environment will be more favourable for credit activity. The final result will be an increased rate of expansion in credit without generating higher levels of delinquency or an increased past-due loan portfolio, since the greater ability to pay generated by the recovery of income and the lower cost of credit will mean the economic agents will be able to request more credit without its being more of a financial burden on them.

Finally, we should remember that the Banco de México itself, in its *2017 Financial System Report*, also warned of the possibility of a further deterioration in the quality of the banking sector's credit portfolio in the near future. In this regard, the central bank specifically says in its Report that "... after a period of sustained growth in household and business credit and therefore also in their debt levels, combined with rising interest rates and economic growth below its potential, the possibility of a future deterioration in the quality of the portfolio has increased." In this sense, it is desirable that both borrowers and lenders behave with caution in order to avoid situations of excessive debt or a relaxation of credit origination criteria that could result in rises in delinquency rates.

4. Statistical annex

Table 4.1 Financial Savings: Balances in billions of pesos of December 2017

	IV07	IV08	IV09	IV10	IV11	IV12	IV13	IV14	IV15	IV16	IV17	Part. %
M4a	9,260	10,150	10,396	11,153	12,425	13,738	14,367	15,439	16,078	16,817	16,982	
-Coins and Bills	650	701	735	786	841	895	930	1,047	1,201	1,348	1,374	
= Financial Savings*	**8,610**	**9,449**	**9,661**	**10,367**	**11,584**	**12,843**	**13,437**	**14,393**	**14,877**	**15,468**	**15,607**	**100.0**
I. Deposit Institutions	**3,302**	**3,698**	**3,718**	**3,892**	**4,124**	**4,349**	**4,503**	**4,823**	**5,384**	**5,905**	**6,089**	**39.0**
Development Banking	420	447	465	470	492	536	580	639	745	833	854	5.5
Resident Commercial Banking (demand + term)	2,743	3,102	3,087	3,239	3,428	3,600	3,721	3,951	4,383	4,802	4,978	31.9
On-demand	1,553	1,606	1,681	1,841	2,008	2,114	2,257	2,459	2,765	3,061	3,170	20.3
Term	1,190	1,496	1,406	1,398	1,419	1,486	1,463	1,493	1,618	1,741	1,808	11.6
Commercial bank offices overseas	109	119	101	112	131	135	109	133	146	147	131	0.8
Savings and Loan Companies (SAP)	29	30	65	71	74	78	94	100	110	123	126	0.8
II. Securities issued by the Public Sector	**4,065**	**4,177**	**4,372**	**4,848**	**5,730**	**6,744**	**7,114**	**7,756**	**7,536**	**7,536**	**7,449**	**47.7**
Securities issued by the Federal Government	2,697	2,941	3,129	3,477	4,234	5,159	5,437	6,032	5,896	5,861	5,868	37.6
Brems	18	1	1	1	0	0	0	0	0	0	0	0.0
IPAB Bonds	856	744	715	756	804	860	866	857	728	777	693	4.4
Other public securities	494	491	526	614	692	725	811	868	912	898	888	5.7
III. Securities issued by companies	**449**	**436**	**420**	**435**	**484**	**478**	**511**	**484**	**561**	**582**	**617**	**4.0**
IV. SAR, non-Siefores	**794**	**1,139**	**1,151**	**1,192**	**1,246**	**1,272**	**1,309**	**1,329**	**1,395**	**1,445**	**1,453**	**9.3**
Financial Savings= I + II + III + IV*	**8,610**	**9,449**	**9,661**	**10,367**	**11,584**	**12,843**	**13,437**	**14,393**	**14,877**	**15,468**	**15,607**	**100.0**
Some components of Financial Savings and others												
Siefores	1,251	1,326	1,543	1,790	1,951	2,277	2,352	2,628	2,747	2,888	3,095	
Foreign holdings of VSP	344	395	447	834	1,307	2,091	2,256	2,575	2,513	2,277	2,126	
Mutual Funds (only debt**)	1,058	955	1,093	1,335	1,337	1,492	1,498	1,573	1,543	1,581	1,564	
Mutual Funds (debt and equity***)	1,298	1,126	1,308	1,620	1,636	1,837	1,926	2,092	2,127	2,185	2,296	
Financial Savings without SAR total***	6,565	6,984	6,967	7,386	8,387	9,294	9,776	10,436	10,735	11,136	11,060	
SAR Total (Siefores and non-Siefores)	2,045	2,465	2,694	2,981	3,197	3,549	3,661	3,957	4,142	4,332	4,548	
Real annual % change												
M4a	7.2	9.6	2.4	7.3	11.4	10.6	4.6	7.5	4.1	4.6	1.0	
-Coins and Bills	6.4	7.9	4.9	6.9	7.0	6.4	3.9	12.5	14.7	12.3	1.9	
= Financial Savings*	7.2	9.7	2.2	7.3	11.7	10.9	4.6	7.1	3.4	4.0	0.9	
I. Deposit Institutions	**9.0**	**12.0**	**0.5**	**4.7**	**6.0**	**5.5**	**3.5**	**7.1**	**11.6**	**9.7**	**3.1**	
Development Banking	-5.1	6.4	4.1	1.1	4.6	9.0	8.3	10.1	16.7	11.8	2.5	
Resident Commercial Banking (demand + term)	10.6	13.1	-0.5	4.9	5.8	5.0	3.4	6.2	10.9	9.6	3.7	
On-demand	9.7	3.4	4.7	9.5	9.1	5.3	6.8	8.9	12.4	10.7	3.5	
Term	11.9	25.7	-6.0	-0.5	1.5	4.7	-1.5	2.0	8.4	7.6	3.9	
Commercial bank offices overseas	34.7	9.0	-15.1	10.5	17.0	3.5	-19.8	22.7	9.6	0.9	-11.1	
Savings and Loan Companies (SAP)	9.3	2.4	115.8	9.4	4.2	5.5	20.5	6.6	10.2	11.8	2.3	
II. Securities issued by the Public Sector	**6.3**	**2.7**	**4.7**	**10.9**	**18.2**	**17.7**	**5.5**	**9.0**	**-2.8**	**0.0**	**-1.2**	
Securities issued by the Federal Government	14.4	9.0	6.4	11.1	21.8	21.9	5.4	10.9	-2.3	-0.6	0.1	
Brems	-86.9	-91.9	-3.1	-4.3	-100.0	0.0	0.0	1.0	2.0	3.0	4.0	
IPAB Bonds	8.1	-13.2	-3.8	5.7	6.4	6.9	0.7	-1.0	-15.0	6.7	-10.8	
Other public securities	-8.7	-0.6	7.1	16.8	12.7	4.7	11.9	7.0	5.2	-1.6	-1.1	
III. Securities issued by companies	15.4	-2.9	-3.7	3.6	11.2	-1.2	6.8	-5.3	16.0	3.8	5.9	
IV. SAR, non-Siefores	1.3	43.4	1.1	3.5	4.5	2.1	2.9	1.5	5.0	3.5	0.6	
Financial Savings= I + II + III + IV*	7.2	9.7	2.2	7.3	11.7	10.9	4.6	7.1	3.4	4.0	0.9	
Some components of Financial Savings and others												
Siefores	11.0	6.0	16.3	16.0	9.0	16.7	3.3	11.7	4.5	5.1	7.2	
Foreign holdings of VSP	51.6	14.9	13.1	86.7	56.7	59.9	7.9	14.2	-2.4	-9.4	-6.7	
Mutual Funds (only debt**)	15.2	-9.7	14.4	22.2	0.1	11.6	0.4	5.0	-1.9	2.5	-1.1	
Mutual Funds (debt and equity***)	17.3	-13.3	16.2	23.9	0.9	12.3	4.9	8.6	1.7	2.8	5.1	
Financial Savings without SAR total***	7.3	6.4	-0.2	6.0	13.6	10.8	5.2	6.8	2.9	3.7	-0.7	
SAR Total (Siefores and non-Siefores)	7.0	20.5	9.3	10.7	7.2	11.0	3.2	8.1	4.7	4.6	5.0	

* The balances of Financial Savings calculated by both methods differ slightly from each other, possibly because of rounding and small inconsistencies between them.
** Only the portion that forms part of Financial Savings has been considered. Information as of November 2017
*** Total debt IS: managed by banks and financial groups, brokerage houses and independent operators.
**** The equity component (shares) of the common and capital IS are not part of Financial Savings
ns = not significant
Source: Bank of Mexico (Broad Monetary Aggregates, Methodology 1999)

Table 4.2 Private Sector Credit and Financing (Figures for the end of the period). Balances in billions of pesos of December 2017

	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	IV 13	IV 14	IV 15	IV 16	III 17
Total: All categories	4,770	5,409	5,731	5,468	5,722	6,485	6,721	7,260	7,811	8,808	9,977	9,744
Banking	1,860	2,281	2,443	2,337	2,443	2,758	2,971	3,176	3,322	3,866	4,292	4,390
Non-bank	2,911	3,128	3,288	3,131	3,279	3,727	3,750	4,084	4,489	4,942	5,685	5,354
Total Consumer	763	871	824	722	725	824	924	1,002	1,025	1,088	1,276	1,315
Banking	614	743	694	561	559	667	770	821	840	934	1,015	1,039
Non-bank	149	128	130	161	166	157	154	181	185	154	261	277
Total Housing	1,305	1,558	1,576	1,598	1,671	1,760	1,844	1,881	1,954	2,087	2,213	2,274
Banking	382	438	463	487	519	541	571	592	616	721	768	780
Non-bank	923	1,120	1,113	1,111	1,152	1,220	1,273	1,289	1,338	1,366	1,445	1,494
Total Companies	2,701	2,980	3,331	3,148	3,326	3,900	3,953	4,377	4,832	5,633	6,488	6,154
Banking	863	1,099	1,286	1,290	1,365	1,550	1,630	1,764	1,867	2,211	2,509	2,571
Non-bank	1,838	1,880	2,045	1,859	1,961	2,350	2,323	2,613	2,966	3,422	3,979	3,583
						Real annual percentage change, %						
Total: All categories	16.1	13.4	6.0	-4.6	4.6	13.3	3.6	8.0	7.6	12.8	13.3	0.1
Banking	25.4	22.6	7.1	-4.3	4.5	12.9	7.7	6.9	4.6	16.4	11.0	4.3
Non-bank	10.8	7.5	5.1	-4.8	4.7	13.7	0.6	8.9	9.9	10.1	15.0	-3.2
Total Consumer	26.6	14.1	-5.5	-12.4	0.4	13.7	12.1	8.5	2.3	6.2	17.3	5.1
Banking	36.9	21.1	-6.6	-19.2	-0.2	19.2	15.4	6.6	2.3	11.2	8.7	3.2
Non-bank	-3.2	-14.3	1.4	24.1	2.8	-5.0	-2.0	17.7	2.2	-16.8	69.4	12.7
Total Housing	9.9	19.3	1.2	1.4	4.5	5.4	4.8	2.0	3.9	6.8	6.1	1.6
Banking	28.9	14.6	5.7	5.2	6.5	4.2	5.6	3.6	4.0	17.1	6.5	2.3
Non-bank	3.6	21.3	-0.6	-0.2	3.7	5.9	4.4	1.3	3.8	2.1	5.8	1.2
Total Companies	16.5	10.3	11.8	-5.5	5.7	17.3	1.4	10.7	10.4	16.6	15.2	-1.5
Banking	17.0	27.3	17.0	0.2	5.9	13.6	5.2	8.2	5.8	18.5	13.5	5.4
Non-bank	16.2	2.3	8.8	-9.1	5.5	19.8	-1.2	12.5	13.5	15.4	16.3	-5.9
						Percentage of GDP, %						
Total: All categories	27.8	29.6	32.5	31.1	31.0	32.6	33.6	36.5	37.9	41.3	43.8	44.2
Banking	10.8	12.5	13.9	13.3	13.3	13.9	14.9	16.0	16.1	18.1	18.9	19.9
Non-bank	16.9	17.1	18.7	17.8	17.8	18.8	18.8	20.6	21.8	23.2	25.0	24.3
Total Consumer	4.4	4.8	4.7	4.1	3.9	4.1	4.6	5.0	5.0	5.1	5.6	6.0
Banking	3.6	4.1	3.9	3.2	3.0	3.4	3.9	4.1	4.1	4.4	4.5	4.7
Non-bank	0.9	0.7	0.7	0.9	0.9	0.8	0.8	0.9	0.9	0.7	1.1	1.3
Total Housing	7.6	8.5	8.9	9.1	9.1	8.9	9.2	9.5	9.5	9.8	9.7	10.3
Banking	2.2	2.4	2.6	2.8	2.8	2.7	2.9	3.0	3.0	3.4	3.4	3.5
Non-bank	5.4	6.1	6.3	6.3	6.2	6.1	6.4	6.5	6.5	6.4	6.3	6.8
Total Companies	15.7	16.3	18.9	17.9	18.0	19.6	19.8	22.0	23.5	26.4	28.5	27.9
Banking	5.0	6.0	7.3	7.3	7.4	7.8	8.2	8.9	9.1	10.4	11.0	11.7
Non-bank	10.7	10.3	11.6	10.6	10.6	11.8	11.6	13.2	14.4	16.1	17.5	16.2
						Infrastructure and Number of Bank Cards (Units)						
ATMs	25,687	29,333	29,640	33,648	35,942	36,427	40,194	40,811	42,931	45,781	47,945	48,501
POS terminals	305,144	418,128	446,025	446,792	482,299	523,578	556,273	630,700	731,225	851,486	898,853	890,031
Branches*	8,404	9,230	10,722	10,731	11,291	11,785	12,407	12,581	12,698	12,234	12,522	12,672
						Number of current cards (Figures in millions)						
Credit (Source: CNBV) [1/]	21.4	24.8	30.7	25.8	23.9	27.6	25.9	26.9	28.0	24.5	26.3	27.1
Credit (Source: Banxico)				12.7	13.3	14.5	15.8	16.4	16.1	16.7	17.8	18.0
Debit	51.7	51.9	47.0	52.3	61.7	74.0	85.3	100.2	105.3	104.9	103.5	91.2

Continued on the next page

Table 4.3 Private Sector Credit and Financing (Figures for the end of the period). Balances in billions of pesos for December 2017

	IV 06	IV 07	IV 08	IV 09	IV 10	IV 11	IV 12	IV 13	IV 14	IV 15	IV 16	III 17
Commercial bank credit	262	799	693	720	610	726	846	875	954	607	419	382
Federal government	48	122	78	161	110	124	137	116	183	78	34	32
States & Municipalities	85	3	1 -	0 -	0	3	6	7	6	340	347	319
Decentral. gov't agen.	129	674	615	560	500	599	704	753	764	189	38	31
Development bank credit	201	194	200	177	163	157	182	196	238	260	256	244
Federal government	103	123	127	72	70	32	39	38	66	83	83	82
States & Municipalities	42	42	37	62	62	99	122	143	153	158	158	150
Decentral. gov't agen.	56	29	36	43	31	27	21	14	19	19	15	13
Debt issued in the country	4,202	4,528	4,756	5,914	5,497	6,339	6,993	7,654	8,146	8,436	8,137	8,491
Federal government	2,461	2,713	2,866	3,708	3,350	3,642	3,974	4,381	4,760	5,188	5,248	5,530
States & Municipalities	57	67	73	86	78	84	87	101	108	106	103	100
Decentral. gov't agen.	224	223	226	305	358	445	492	571	632	686	653	659
IPAB	930	1,042	1,027	1,188	1,023	1,056	1,041	1,057	1,003	1,013	992	984
Banco de México	269	274	354	386	478	901	1,188	1,334	1,430	1,231	929	1,006
FARAC	260	209	209	240	211	210	211	211	211	211	211	211
External financing	711	697	819	992	926	1,081	1,067	1,108	1,306	1,572	1,941	1,683
Credit and financing Total	5,376	6,217	6,468	7,804	7,196	8,304	9,088	9,833	10,643	10,875	10,753	10,800
Real annual percentage change in the balance, %												
Commercial bank credit	-25.8	204.9	-13.2	3.9	-15.3	19.0	16.5	3.4	9.0	-36.4	-30.9	-3.6
Federal government	-46.0	151.2	-36.1	106.8	-31.3	12.4	10.4	-15.5	58.3	-57.5	-56.3	10.3
States & Municipalities	-14.4	-96.3	-74.6	-111.9	95.3	-1807.0	85.7	12.1	-9.5	5670.0	2.1	-3.3
Decentral. gov't agen.	-21.8	422.3	-8.8	-8.9	-10.7	19.8	17.4	7.0	1.5	-75.3	-79.9	-17.1
Development bank credit	-6.3	-3.5	3.0	-11.3	-8.2	-3.3	15.4	7.9	21.5	9.3	-1.7	-2.0
Federal government	-16.2	19.2	3.5	-43.2	-3.6	-54.3	22.9	-2.2	71.8	26.8	-0.5	-2.0
States & Municipalities	4.9	1.2	-13.2	71.0	-0.9	59.2	23.3	18.1	6.7	3.5	-0.4	-2.9
Decentral. gov't agen.	8.7	-48.4	24.5	17.7	-26.5	-13.7	-22.2	-32.1	35.1	-3.8	-19.0	10.1
Debt issued in the country	16.6	7.7	5.0	24.3	-7.1	15.3	10.3	9.5	6.4	3.6	-3.5	3.3
Federal government	28.6	10.2	5.7	29.4	-9.7	8.7	9.1	10.2	8.7	9.0	1.2	4.7
States & Municipalities	65.7	18.1	8.5	17.9	-9.6	8.0	2.8	16.9	6.9	-2.0	-2.9	-2.7
Decentral. gov't agen.	28.4	-0.7	1.5	35.1	17.2	24.4	10.4	16.1	10.8	8.5	-4.9	1.6
IPAB	15.5	12.0	-1.4	15.7	-13.9	3.3	-1.4	1.5	-5.0	1.0	-2.1	-2.3
Banco de México	-36.4	1.7	29.2	8.9	24.0	88.5	31.9	12.2	7.2	-14.0	-24.5	4.1
FARAC	3.8	-19.9	0.3	15.0	-12.2	-0.2	0.4	-0.2	0.1	0.0	0.0	0.3
External financing	-29.8	-2.0	17.5	21.1	-6.6	16.7	-1.3	3.8	17.8	20.4	23.5	-9.6
Credit and financing Total	3.7	15.6	4.0	20.7	-7.8	15.4	9.4	8.2	8.2	2.2	-1.1	0.7
Credit and Financing: Percentage of GDP,%												
Commercial bank credit	2.8	8.1	7.4	6.4	6.0	6.7	7.8	8.2	8.4	5.3	3.5	3.3
Federal government	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.5	1.4
States & Municipalities	0.8	3.7	3.5	2.8	2.7	3.0	3.5	3.8	3.7	0.9	0.2	0.1
Decentral. gov't agen.	1.5	4.4	3.9	3.6	3.3	3.7	4.2	4.4	4.6	2.8	1.8	1.7
Development bank credit	1.2	1.1	1.1	0.9	0.9	0.8	0.9	1.0	1.2	1.2	1.1	1.1
Federal government	0.6	0.7	0.7	0.4	0.4	0.2	0.2	0.2	0.3	0.4	0.4	0.4
States & Municipalities	0.2	0.2	0.2	0.3	0.3	0.5	0.6	0.7	0.7	0.7	0.7	0.7
Decentral. gov't agen.	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Debt issued in the country	24.5	24.8	27.0	29.5	29.8	31.9	35.0	38.5	39.5	39.6	35.8	38.5
Federal government	14.3	14.9	16.3	18.5	18.2	18.3	19.9	22.0	23.1	24.3	23.1	25.1
States & Municipalities	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5
Decentral. gov't agen.	1.3	1.2	1.3	1.5	1.9	2.2	2.5	2.9	3.1	3.2	2.9	3.0
IPAB	5.4	5.7	5.8	5.9	5.5	5.3	5.2	5.3	4.9	4.8	4.4	4.5
Banco de México	1.6	1.5	2.0	1.9	2.6	4.5	5.9	6.7	6.9	5.8	4.1	4.6
FARAC	1.5	1.1	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	0.9	1.0
External financing	4.1	3.8	4.6	5.0	5.0	5.4	5.3	5.6	6.3	7.4	8.5	7.6
Credit and financing Total	32.5	37.8	40.2	41.7	41.8	44.8	49.0	53.3	55.4	53.5	48.9	50.6

1 The data from CNBV and Banxico on the number of credit cards differ because CNBV includes the total number of cards. The Banxico data correspond only to generally accepted cards granted to individuals who are up to date on their payments and who used their credit cards during the period reported.
P Preliminary information subject to revision
Source: Banco de México for data on private sector financing and the number of valid credit cards. CNBV for operational data. Banxico, CNBV and SHCP for data on public sector financing and INEGI for data on the GDP

5. Major reforms to the secondary legal and regulatory framework applicable to multi-purpose banks

Table 5.1 Major reforms to the regulatory framework applicable to multi-purpose banks: 2017

Publication	Summary	DOF
1. Resolution modifying the general provisions applicable to credit institutions	The non-revolving consumer credit and mortgage portfolio qualification methodologies were altered to incorporate new risk dimensions at client level, update the default-probability, severity of loss and exposure to default parameters for both portfolios, and incorporate a specific methodology for individual and group microcredits. On the other hand, it is necessary to provide evidence of having consulted the Sole Register of Certificates, Warehouses and Goods and the Sole Register of Security Interests to recognise the guarantees for the purposes of the capitalisation requirements for credit risk and portfolio qualification.	6 Jan 2017
2. Resolution modifying the guidelines for evaluating the performance of multi-purpose banking institutions	The deadlines for bank performance assessments arising from the 2014 Financial Reform were revised.	11 Jan 2017
3. Resolution modifying the general provisions applicable to credit institutions	A transitional resolution is included for the observance of Annex 24 of the Provisions, regarding recognising real guarantees for the capitalisation and qualification of consumer and commercial portfolios. The annex was amended by the resolution of 6 January 2017 and is noteworthy for including the requirement of prior consultation of the Sole Register of Security Interests referred to in the Commercial Code, and the Sole Register of Certificates, Warehouses and Goods, for the purpose of determining whether the goods are free of encumbrances. Its entry into force was set for July 2017, six months after the publication of the original resolution.	4 Apr 2017
4. Resolution modifying the general provisions applicable to credit institutions	The definition of regulatory capital was amended, as were the market risk requirements for investing in stock exchanges and securities depositories so that their risk would be treated like that of any other similar investment. In terms of internal models, risk measurement was amended for loans granted to micro, small and medium-sized companies. Lastly, the Measurement and Update Unit was incorporated.	27 Apr 2017
5. Resolution modifying the general provisions applicable to credit institutions	A credit risk weighting factor of zero percent was established for derivative transactions, subject to the requirement of additional capital for the adjustment of CVA valuation, made by the Bank of Mexico.	31 May 2017
6. DECREE amending the heading of Chapter I of Title Eighteen and adding article 284 Bis to the Federal Criminal Code	The offence of Illegal Extra-Judicial Collection is defined in the Federal Criminal Code as "the use of unlawful violence or intimidation, either personally or by any means, to require the payment of a debt [...]"	22 Jun 2017

Table 5.1 (continued) Main reforms to the regulatory framework applicable to multi-purpose banks: 2017

Publication	Summary	DOF
7. Resolution modifying the general provisions applicable to credit institutions	The credit rating and provisioning methodologies for processing security guarantees were amended and the hedging of prices applicable to agricultural credits was recognised for estimating the Severity of Loss. The period for constituting all preventive reserves arising from applying the methodologies for non-revolving consumer credit, mortgages on homes and microcredit published on 6 January 2017 was extended.	26 Jun 2017
8. Resolution modifying the general provisions applicable to credit institutions	Adjustments arising from the Financial Discipline Law for Federative Entities and Municipalities in the area of file integration, capitalisation requirements and risk diversification.	24 Jul 2017
9. Resolution modifying the general provisions applicable to credit institutions	The draft bill defines the accepted methods for identifying the conclusion of contracts and the request for methods of payment, as well as for cash withdrawals and transfers. At the same time, it establishes verification measures, especially biometric validation and consultation with the National Electoral Institute's electoral credentials database. The rule also provides for the possibility of non-face-to-face identification (digital onboarding).	29 Aug 2017
10. Resolution modifying the general provisions applicable to credit institutions.	The financing limits scheme applicable to states and municipalities was relaxed.	25 Oct 2017
11. Resolution modifying the general provisions applicable to credit institutions.	The deadline for setting capital requirements due to operational risk was extended for credit institutions with a credit portfolio of less than 30 billion UDIs, subject to compliance with certain conditions relating to capital sufficiency exercises under supervisory scenarios.	26 Dec 2017
12. Resolution modifying the general provisions applicable to credit institutions.	The recognition of net capital instruments was relaxed, eliminating the restriction applicable to credit institutions not listed on Mexican stock exchanges and under which the aforementioned instruments were limited to an amount of 400 million UDIs.	27 Dec 2017
13. Resolution reforming the provisions of a general nature referred to in article 115 of the Law on Credit Institutions.	Credit institutions are allowed to use videoconferencing to conduct personal interviews for opening accounts in both local currency and credit accounts held by natural persons of Mexican nationality who act in their own name and on their own behalf and of those of co-owners or authorised third parties.	27 Dec 2017

Source: BBVA Research

6. Special topics included in previous issues

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