**Demand in the UK housing market.**

The stock of housing in the UK includes privately owned and occupied houses and apartments, privately rented and local authority rented accommodation, and property managed by housing associations.

*Total number of households*

In the early 20th Century, less than 10% of all homes were owner-occupied, but by the early 21st Century, this figure had risen to 70% - just above the EU average. By 2016, there were just over 27 million households in the UK.

*Privately owned properiorororoororoor*

In the UK, privately owned property is either freehold or leasehold. Freehold ownership means that the land is owned as well as the property on the land, and leasehold means the land is not owned, and the owner buys the right to use the land and property for a period of time, usually over 100 years when the lease is first granted. As each year goes by, the lease becomes shorter until the land and property reverts to the landlord. It is common for leaseholders to purchase an extension to the lease when it falls below 60 years.

*Mortgages*

The majority of freehold and leasehold property is bought with the aid of a long-term loan, called a mortgage. Mortgages can be for any period of time, but 25 years is the most common. Mortgage repayments usually include two elements; repayment of the loan, called the capital, and repayment of the interest on the loan.

Since the late 1980s, securitisation of mortgages has meant that mortgage debt has been repackaged to provide a flow of income to third parties, including investment banks. This approach has been deeply implicated in the global financial crisis of 2008-09.

*Privately rented property*

With privately rented property, the landlord rents out property through a short tenancy agreement, usually for 6 months, though this can be renewed. Tenants typically pay a monthly rent, though other payment periods may exist.

*Local government - local authority - rented property*

In the case of local authority rented property, tenants pay a weekly or monthly rent, which is commonly subsidised, and below commercial market rates. Property is allocated to individuals based on need and not just their income. Most local authorities do not have sufficient properties to meet demand and have long waiting lists.

*Housing Association property*

Housing Associations offer affordable properties for part-ownership and part-rental.

*New built houses and existing property*

The housing market is unlike many other markets given the relative importance of second-hand transactions, compared with purchases of newly built property. According to the UK's largest mortgage lender, the Nationwide Building Society, only around 5% of transactions involve the purchase of new properties. Indeed, 95% of transactions involve the purchase of either 'old' property, which is defined as property built before the start of the Second World War, or 'modern' property, which is property built after 1945. The relative dearth of new property is one of the key factors driving the upward trend of UK property prices in the long run.

*The housing market in the UK is extremely important for two main reasons.*

Firstly, housing usually represents a household’s biggest single purchase, and a house represents the largest single item of consumer wealth.

Secondly, changes in house prices can have considerable effects on the rest of the economy.

A change in house prices affects the value of household wealth, creating a positive or negative wealth effect. A positive wealth effect means that, following a rise in house prices, the ratio of the market value of the property to the debt on that property, typically in the form of a mortgage, rises creating an increase in equity. This can trigger housing equity withdrawal (previously called mortgage equity withdrawal) and can be a significant boost to consumer spending.

Changes in interest rates, which are a key policy tool to regulate the UK economy, often have a more significant effect on consumer spending in the UK than in other economies. This is due to the relatively large proportion of home ownership in the UK, and the general spending sensitivity of UK consumers to interest rate changes.

The long-term trend for UK house prices is upwards, but changes in house prices are extremely cyclical.

*Property prices, debt and equity*

While the debt on properties falls over time, as repayments are made, property prices tend to rise. This means that an owner’s equity in their property also rises. Equity is the difference between the market price of a property and the debt owed at a point in time.

Rising equity creates a positive wealth effect, which can lead to housing equity withdrawal. This occurs when homeowners release some of their equity by taking out a bank loan secured against the equity in the property.

*Recent changes in housing equity withdrawal*

A negative wealth effect is created when house prices fall creating a fall in equity. Prices may even fall to a level that creates negative equity, as in the crashes of 1990 and 2008. Negative equity exists whenever the amount of debt on a property is greater than the market value of the property. Negative equity reduces consumer confidence, and is likely to discourage spending.

Demand for private housing

The demand for private housing is determined by a number of factors, including house prices.

As expected, there tends to be an inverse relationship between house prices and demand. As with all goods, the inverse relationship can be explained with reference to the income and substitution effect.

At higher prices, real incomes will fall and individuals will reduce their demand. In addition, at higher prices, the alternatives to owning a property, such as renting, appear more attractive and individuals are more likely to rent. When house prices are lower the reverse is true, with individuals encouraged to buy because of a rise in their real income and because renting seems less attractive. However, the demand for property is also partly speculative, so that a rise in prices can lead to a rise in demand as buyers anticipate a speculative gain.

*The non-price determinants include:*

In addition to changes in price, which cause a movement along the demand curve for housing, other non-price factors are also important, and changes in these cause a shift in the demand curve.

*Population*

Total demand for property is determined by population size and changes in the structure of the population caused by migration and long-term changes in the birth and death rates. An aging population will increase the overall demand for property.

*Incomes of households*

Changes in both the level of national income, and its distribution, can have a significant effect on the demand for property. As houses are normal goods with a high income elasticity of demand, increases in income can trigger a larger percentage increase in demand. As their income rises many individuals switch from renting to home ownership, or move to bigger property. Some may buy a second property as holiday homes, or to rent out. Hence, the demand curve for private housing will shift to the right as incomes rise.

*Social trends*

Social and lifestyle trends, such as a preference for late marriages, can alter the pattern of demand for houses, and the total demand. The preference for later marriages had led to an increase in the number of single households, and to a rise in the demand for flats and apartments.

*Interest rates*

Changes in general interest rates may be passed on by lenders such a building societies and banks, and this will also the amount of monthly repayments for those on variable-rate mortgages. Higher rates make property less affordable, and the demand curve will shift to the left.

Interest rates, which had been averaging around 4.5%, started to fall dramatically in late 2008, to reach their lowest level on record. Since then, Bank of England base rate has remained at 0.5%. However, mortgage rates did not fall so dramatically, as lenders looked to maintain their liquidity and increase their profitability. Also, many borrowers were on fixed-rate mortgages, and could not take advantage of low rates in the short term.

Average variable rate mortgages from banks and building societies fell to 3.8% in early 2009, and, despite base rate being kept on hold at 0.5%, mortgage rates rose back up to over 4.5% by 2016.

*Availability of credit*

The availability of credit is also important in determining the demand for property. During the banking and financial *crisis of 2008-09, the supply of credit fell which reduced the demand for housing, and led to a fall in house prices.*

*Fashion*

Owning property has become increasingly fashionable in the UK over the last 25 years. One reason is the number of television programmes featuring property purchases, renovations, and 'make-overs', which have all increased interest in housing and the housing market.

*Price of substitutes*

Renting property is an alternative to ownership, and changes in rental prices can affect the demand for private property.

*Buy-to-let demand*

The increase in the availability and popularity of buy-to-let mortgages in the 1990s created a new market for property as an investment and gave a boost to an already buoyant market.

*Expectations*

There is an important speculative element in the demand for property. Property developers and ordinary householders often base their current demand for property on expectations of future price changes. Rising house prices encourage speculation and falling house prices discourage speculative buying.

*Changes in demand*

Changes in any of the underlying determinants of demand for houses will shift the demand curve to the left or right.

**Demand in the energy market.**

The energy market is evolving. A series of macro and micro structural changes are dragging down growth in demand, while the drive towards a lower carbon future, changes in consumer behavior, and technological innovation are affecting the fuel mix and shifting supply emphasis towards renewable energy sources.

In our latest integrated energy outlook, we project lower long-term demand growth than other reference scenarios, and even than our own previous forecasts have anticipated. So what is leading this evolution? And could we see a peak in demand for traditional fuels?

What drives energy demand?

At a fundamental level, population, economic growth, and energy efficiency improvements are the key influences on energy demand.

In the 37-year period between 2013 and 2050 we’ll see significant change across each of these drivers:

Global population looks set to increase by 36% to around 10 billion

GDP per capita, although set to grow more slowly than previous estimates, will double.

But while on the surface, these two drivers would indicate continued growth in demand for energy, it is in fact decelerating.

Much of the growth in population will result from people living longer, which will in turn depress employment figures and place pressure on GDP. Meanwhile, although GDP will increase overall, we’ll see a global shift towards a service-driven economy, away from energy-hungry heavy industry. And as technology and process improvement on both the demand and supply sides lead to greater productivity and energy efficiency within individual sectors, energy intensity of the economic growth will halve.

Overall, primary energy demand growth looks set to slow to around 0.7% per year through to 2050, a rate lower than mainstream ‘base case’ perspectives, and 30% slower than our own projections from 2015.

Where will energy demand come from?

Regionally? From non-OECD, countries, most notably, China, followed relatively closely behind by India. Demand in North America and Europe will likely see a decline.

These are the sectors that will drive primary energy demand:

Demand for feedstock and energy from the chemicals sector will drive growth of more than double the rate of the rest of total demand, with a CAGR of 1.8%

Industry, power and heat, and buildings will see a slightly flatter forecast, at around 0.6-0.7%

Energy for light vehicles will decline, by 0.2% overall, after a peak around 2023

Electricity will be the clear winner in terms of energy type, outstripping growth in demand for other sources by more than two to one – primarily as a result of building and industry electrification in China and India. Almost 80% of capacity to meet this growth will be generated from solar and wind; reflecting the shift towards renewables long-term.

What will these changes in demand mean for energy suppliers?

The fuel mix, particularly in the power industry, will remain reliant on fossil fuels right through to 2050, albeit at a reduced rate. Accounting for 74% of the total primary mix, down from a current high of 82%, the gap will be filled by renewables; most notably solar and wind, which will rise to 7%. A shift towards greener energy generation will be matched by a move towards electric vehicles and more efficient engines, leading to a decline in energy-related CO2 emissions from 2035 onwards.

Drilling down, demand for gas will continue to increase, with a CAGR of around 1.2% between 2013 and 2050. In contrast, oil looks set to flatten, with growth of just 0.4% overall, while coal will peak by around 2025. Crude producers will need to look beyond anticipated growth in the chemicals sector to shore up the industry, as the feedstock products driving growth in that sector are not typically manufactured from crude or refining.

It’s a less than dynamic outlook for oil, which begs the question, could we see a peak in demand? Of course, this business-as-usual case could be impacted by a number of influences; changes in GDP, continually fluctuating oil prices, new innovation in technology, and regulatory change. Sector players however, would be well advised to continue monitoring growth forecasts and consider the implications for investment in the long term.

**Demand in the Russia housing market.**

Having the largest share in total construction both in value and volume terms, the housing market is the engine of the whole Russian construction market. Any change – decline or growth – in the housing subsector may have a decisive effect on the Russian construction industry as a whole; as it was the case, in particular, during the crisis of the Russian economy in 2015-2016. In this period, the housing sector enjoyed an unprecedented level of state support, which prevented the entire construction industry from collapsing.

The state of the housing market primarily depends on the ability of the population to purchase housing. Other market factors, such as the volume of supply in the market, the level of competition or the cost of housing are secondary. It is the ability of citizens to buy housing that ultimately determines the total volume of effective demand, which in turn regulates development activity and price trends in the local housing market. At the same time, the indicators of the population’s need for housing are also secondary in terms of the dynamics of the market situation; they are of an abstract nature and cannot be used to predict the situation in the market. The need for housing is a conditional market potential, which, without the ability to buy housing is never realized. The ability of the population to purchase housing is the real market potential, which – in most cases – is realized in transactions. The level of housing provision (need) affects only the nature of demand: investment purchase, purchase of a first home, improvement of housing conditions, among others.

The key unit for measuring demand potential in the housing market is households. When making decisions about a major purchase, citizens consider the opinion of those close to them and often accumulate joint resources. The acquired real estate is ‘used’ by all participants of the transaction, so it is advisable to use the term ‘household’ and to consider the market situation through it.

Thus, the dynamics of the number of households able to purchase housing is the main indicator of the development of the whole housing market. The forecast of the absolute number of such households makes it possible to determine in which direction the market will move and to establish the dynamics of its key indicators. The basis for implementing such forecast for the development of housing markets is macroeconomic indicators (GDP, consumer price index, population, interest rates on mortgages). Any housing market essentially depends on the overall economic situation in a country or region, and is in direct correlation with macroeconomic indicators, which makes it possible to predict the indicators of the housing market in the long term, based on the dynamics of the former. Demand for housing considerably depends on the solvency of potential buyers, which consists of the level and ratio of their income and expenses, as well as the availability of credit instruments (mainly mortgage). For the forecast, we need the potential number of transactions involving mortgages, plus transactions without the use of mortgages. Their sum will illustrate the general dynamics of the population’s activity and provide basis for forecasting other important market indicators.

In general, the logical scheme of the forecast looks as follows: macroeconomic conditions > income level of population/availability of credit instruments > demand potential in housing market (number of households able to purchase housing) > share of the realization of the potential (percentage of potential transactions becoming real) > number of transactions > general condition of housing market. The methodological basis of the forecast is mathematical statistical methods: correlation and regression analysis, as well as the method of lognormal distribution.

Current expectations of national financial regulators (The Central Bank of the Russian Federation (CBR), The Ministry of Economic Development) allow us to conclude that the Russian economy has overcome the recession and is to enter a moderate, but stable growth path in mid-term. Positive GDP dynamics and reaching targeted inflation rates should contribute to growth in real incomes of the population and thus increase its solvency. The gradual reduction of the key rate of the CBR has already led to negative dynamics in housing loan rates. In mid-term, we can expect the gradual rise in the availability of mortgage lending to continue.

Favorable dynamics in the level of the population’s solvency in mid-term should lead to a gradual increase in the number of households able to buy housing: from 20.1 million units in 2016 to 31.4 million units in 2019. The share of households able to buy housing is set to go up from 35.6% (2016) to 55.2% (2019) of the total number of Russian households.

The main volume of growth in the number of households will likely be realized for households having access to a mortgage loan: their share in the total volume of potential demand will remain stably high, at about 91% on average in 2016-2019. At the same time, the share of households able to buy homes on own funds (without resorting to borrowings) should only be about 9%. Mortgage – in the medium run – is set to remain the major means to purchase residential units in Russia, and the dynamics of main conditions for mortgage lending will also depend on the volume of demand for housing.

While maintaining the share of potential demand (the share of actual transactions against potential ones) at current level (4.3% at end 2015 and 3.8% in 2016 – it is believed to return to the values of 2015 in the future), the number of transactions in the primary housing market in Russia should go up from 620 thousand units in 2016 to 980 thousand units in 2019. Considering the projected dynamics of the population and the volume of purchased housing for the period of 2016-2019, the indicator of total average residential area per square meter per person should also rise significantly, reaching the level of 27.3 sqm/person in 2019, (24.8 sqm/person in 2016); that is, a little closer to the target value of 30 sqm/person declared in public housing programs.

Therefore, with a moderate growth in the Russian economy, we can expect a stable development in the housing market. Any macroeconomic shocks (for example, the one similar to the events at the end of 2014) should immediately have a negative influence on the ability of citizens to buy housing and should lead to a drop in the number of transactions as well as a general decline in the volume of construction market. However, a pessimistic scenario is unlikely to date.

Nonetheless, the positive dynamics of demand potential cannot have an immediate effect on residential output. The ability to buy housing does not translate to real transactions instantly since developers need time to respond to the rise in purchasing power and to increase the volume of investments in new projects. Therefore, in 2017-2018 the Russian housing market is set to show a certain inertia and is predicted to continue to decline, though at a slower rate (more details in the current/previous EECFA reports). In this respect, the forecasted growth in demand potential will be the main reason for stopping the falloff, and the housing segment could expand again in 2019.