Turkey in 2041
Looking to the future

May 2012
Turkey’s economic landscape will be a very different place in 2041. The country has the opportunity to capitalise on a growing, skilled labour force to sustain long-term economic growth. The range of options that are open to Turkey should see it cement itself as the 12th largest economy in the world by 2041, climbing up the global economic league table in the process. Its success will depend upon a variety of factors; one of which is the development of key national industries.

A number of industries have the potential to drive this growth. This report has looked at a number of potential opportunities for the Turkish economy by 2041, but by no means aims to cover all sectors where Turkey displays potential strength. Sectors such as financial services, real estate and construction, for example, have not been covered in this report, although they could present interesting opportunities for many businesses. This report looks at five industries with the potential to become regional centres of excellence by 2041.

Turkey’s plentiful natural resources create an opportunity for its food processing industry to grow and supply to new export markets. Continued Foreign Direct Investment (FDI) may also help to foster a growing agricultural R&D industry. Turkey’s climb up the value-chain over the next thirty years may be further enhanced by a shift towards alternative energies, where foreign investors may look to take advantage of Turkey’s abundant renewable energy sources.

The tourism sector has the opportunity to benefit from a larger exposure to an emerging-market demographic which is expected to grow relatively strongly in the medium-term.

Turkey could also build upon its existing presence in the automobile manufacturing market, where light commercial vehicle and new energy-efficient models offer particular opportunities for expansion.
**Introduction**

Global economic power is shifting and Turkey has the potential to be one of the biggest beneficiaries of this change. To mark the 30th anniversary of PwC’s presence in Turkey, this study looks at what the next three decades could have in store for the Turkish economy.

The country has the opportunity to capitalise on a growing skilled labour force and favourable climate, as well as geographical location at the crossroads of a number of wealthy regions, all of which could be used to sustain long-term economic growth and development.

The success of the Turkish economy over the next 30 years will depend upon a variety of factors; one of them is the development of key centres of excellence centred on industries where Turkey can develop an international competitive advantage and succeed in attracting foreign direct investment (FDI) as well as exporting goods and expertise to its region and beyond.

This report has looked at a number of potential opportunities for the Turkish economy by 2041, but by no means aims to cover all sectors where Turkey displays potential strength. Sectors such as financial services, real estate and construction, for example, have not been covered in this report, although they could present interesting opportunities for many businesses. In this study, we look at the overall potential for the Turkish economy to grow vis-a-vis other major economies over the next 30 years. We then look in more detail at some of the industries that could emerge as centres of excellence over the next three decades.

A number of industries have the potential to become centres of excellence by 2041 including:

- Food and beverage processing;
- Agricultural R&D and services;
- Alternative energy;
- Automobile production and
- Tourism.
Turkey’s economic revival

What a difference thirty years make. By the end of the 1970s, Turkey’s economy was characterised by soaring inflation and inward-looking policies aimed at insulating producers from foreign competition. Whilst economic conditions improved over the following two decades many obstacles remained. Inflation was still rife and political instability caused uncertainty for potential foreign investors. An attempt to bring down inflation by pegging the exchange rate resulted in a full-blown banking and financial crisis in 2001.

Turning the corner

The response to the 2001 crisis signalled the start of a remarkable turnaround in economic fortunes for Turkey. Structural reforms were undertaken to open up the economy to private businesses and the country actively courted Foreign Direct Investment (FDI).

The result has been sustained economic growth. Whereas a decade ago, the Guinness Book of Records labelled the Turkish Lira the world’s “least valuable currency”, today investors have sought haven in the currency as financial crises have engulfed the US and the eurozone. As shown in Chart 1 below, Turkey has recorded stronger growth than both of these regions over the last five years, although it still lags behind exceptionally strong emerging markets performers such as China and India.

Chart 1: Average Real GDP Growth 2007-2011

The future path for growth

Strong economic fundamentals should provide the backbone for Turkey’s growth in the future. Its geography ensures easy access to a number of regions, while the country’s rising middle class will fuel consumer spending over the medium-term.

Young and educated labour market
Turkey’s labour market has the potential to support a solid growth path for the Turkish economy. By 2040, Turkey’s population is expected to grow by a fifth, to 90 million. In contrast, by 2040 China’s population is likely to rise by just over 1%. Turkey’s population will also be relatively young and well-educated. Over half of Turkey’s population is expected to be below 40 years of age in 2040, compared to 40% in China. A well-established university system would equip the next generation for increasingly more highly skilled jobs in the future.

Adding more value
The positive developments in the labour market would be able to support a gradual move towards higher value-added industries, potentially allowing a number of centres of excellence to take shape in Turkey by 2041. Government can play an important part in supporting these developments. Already a number of government reforms aim to facilitate the transition, with an R&D incentive programme offering generous tax breaks, loans and grants to support firms competing higher up the value chain. The privatisation of energy, utility and infrastructure sectors would encourage efficiencies and increase productivity.

1: Source: United Nation (UN) World Population Prospects 2010
2: Source: US Census Bureau, 2011
GDP in 2041

Before we look at the potential makeup of the Turkish economy, it is helpful to understand what size the economy could be by 2041. We have used our long-run economic growth model to project Turkish GDP in 2041 relative to other larger economies.

Table 1 right, shows the potential for Turkey to move up the global league rankings for Total GDP from 16th in 2011 to 12th in 2041 based on our model projections.

Table 1: Top 20 countries by GDP on a PPP basis (constant 2009 US$bn)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>2011</th>
<th>2041</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>US</td>
<td>1.</td>
<td>China</td>
</tr>
<tr>
<td>2.</td>
<td>China</td>
<td>2.</td>
<td>US</td>
</tr>
<tr>
<td>3.</td>
<td>India</td>
<td>3.</td>
<td>India</td>
</tr>
<tr>
<td>4.</td>
<td>Japan</td>
<td>4.</td>
<td>Brazil</td>
</tr>
<tr>
<td>5.</td>
<td>Germany</td>
<td>5.</td>
<td>Japan</td>
</tr>
<tr>
<td>6.</td>
<td>Russia</td>
<td>6.</td>
<td>Russia</td>
</tr>
<tr>
<td>7.</td>
<td>Brazil</td>
<td>7.</td>
<td>Mexico</td>
</tr>
<tr>
<td>8.</td>
<td>UK</td>
<td>8.</td>
<td>Indonesia</td>
</tr>
<tr>
<td>9.</td>
<td>France</td>
<td>9.</td>
<td>Germany</td>
</tr>
<tr>
<td>10.</td>
<td>Italy</td>
<td>10.</td>
<td>UK</td>
</tr>
<tr>
<td>11.</td>
<td>Mexico</td>
<td>11.</td>
<td>France</td>
</tr>
<tr>
<td>12.</td>
<td>Korea</td>
<td>12.</td>
<td>Turkey</td>
</tr>
<tr>
<td>15.</td>
<td>Indonesia</td>
<td>15.</td>
<td>Italy</td>
</tr>
<tr>
<td>16.</td>
<td>Turkey</td>
<td>16.</td>
<td>Canada</td>
</tr>
<tr>
<td>17.</td>
<td>Australia</td>
<td>17.</td>
<td>Vietnam</td>
</tr>
<tr>
<td>18.</td>
<td>Argentina</td>
<td>18.</td>
<td>Saudi Arabia</td>
</tr>
<tr>
<td>20.</td>
<td>South Africa</td>
<td>20.</td>
<td>Argentina</td>
</tr>
</tbody>
</table>

Source: International Monetary Fund World Economic Outlook April 2012. PwC analysis

---

3: See Appendix for a description of the methodology used in our long-run growth model.
4: We use GDP at PPPs to correct for price level differences between economies, but the relative ranking of Turkey also moves up from 16th to 13th place by 2040 based on GDP at market exchange rates, so broad trends are similar on either basis.
Comparing GDP per capita across countries gives us a comparison of income levels across countries. Using the same methodological approach as with GDP, Turkey’s GDP per capita (in terms of PPP, constant 2009 US$) is expected to more than double from its current level to over US$35,000 by 2041. Turkey is expected to narrow the income gap with some countries like the US over the next 30 years. Chart 2 below shows that Turkish income levels compared to the US are likely to grow substantially, from around 25% of US levels in 2009 to nearly 45% in 2041, although countries like China are expected to experience a sharper rate of catch up over the period.

Chart 2: GDP per capita in PPP terms in 2011 and 2041 (constant 2009 US$, % of US GDP per capita)

Source: IMF WEO, PwC analysis
Risks to overcome
There are major economic challenges to overcome if Turkey is to reach its full potential as highlighted in the projections presented above. For example, the economy would benefit from a greater focus on exports to reduce the persistent current account deficit. The current structure of the economy remains susceptible to potential bouts of inflation, with the required monetary tightening often leading to exchange rate appreciation which hurts exports most.

Structural reforms key
As Turkey moves towards higher-value industries, structural reforms are expected to become increasingly important in order to improve competitiveness vis-a-vis other economies. Improving the transport infrastructure, the legal framework, and tax collection efficiency could be some of the items with higher priority on the government’s agenda in order to foster sustainable growth over the longer-term.

Potential centres of excellence
In addition to a supportive economic, social and political environment, the success of national industries would also play an important role in supporting Turkey’s growth in the long-term. A number of industries have the potential to drive this growth and it is likely that over the next 30 years the map of key industries, or centres of excellence, will evolve to reflect the changes taking place in the Turkish and the world economies. This report looks at five industries with the potential to become regional centres of excellence by 2041, building upon Turkey’s traditional strengths in natural resources and its geographic proximity to large foreign markets, while taking advantage of an increasingly skilled and affluent population.

The potential international centres of excellence include:

- Food and beverage processing;
- Agricultural R&D and services;
- Alternative energy;
- Automobile production and
- Tourism.

The background and key opportunities in each industry are outlined in the following pages.
Turkey currently acts as a regional hub for the production, processing and export of foodstuffs to large European and Middle Eastern markets. Its agricultural diversity and amenable climate allow it to produce a sustainable supply chain of raw inputs for its processing industry, facilitating its status as a large net exporter of food and beverages.

Chart 3: Value of Turkey’s manufactured food and beverage export sector (millions US$)

Over the next thirty years Turkey’s food and beverage market has the potential to continue to expand as it is well positioned to meet rising demand, both domestically and internationally. Growing populations, rising incomes, urbanisation and the increased coverage of organised retail should present particular opportunities in the processed, packaged and frozen food sectors as consumer tastes shift towards convenience products and supermarkets proliferate.

Exporting south and west
Turkey has the opportunity to capitalise from its geographic proximity to Europe, Central Asia and the Middle East to satisfy these export markets. Turkey’s Aegean, Black Sea and Anatolian regions are well-suited to the production of organic foods for health-conscious European consumers, which is currently the destination for 85% of all organic food exports.

There may also be a possible opportunity to focus on the Halal market to cater for a rising domestic and foreign Islamic population. Currently, exports to the GCC countries, for example, make up only 6% of total exports and there is potential for the share of exports to the Middle East to rise, thanks to the size of the market and its potential to grow over the longer-term.

FDI fostering a regional hub
Foreign investors could play an important role in fostering growth. The number of foreign companies investing in the Turkish food and beverage industry has increased from 257 in 2005 to 421 in 2009 and global brands have started to expand their operations in the country. Nestlé announced in March 2011 that it will add to its three major Turkish factories with a cereal factory in Bursa. The company has invested over US$140 million in the country over the past four years. There is much potential for foreign companies to continue to set up factories to benefit from these favourable growth dynamics, ultimately encouraging a regional production centre of excellence to develop.

5: Gulf Cooperation Council.
6: Source: The Republic of Turkey Prime Ministry Investment Support and Promotion Agency
Turkey’s development of a competitive food and beverage industry has been accompanied by its first steps into establishing an agricultural R&D foothold in the region. This is an opportunity for R&D to improve the efficiency of the agriculture sector. Chart 4 below shows that whilst Turkey’s crop yield in 2009 is higher than some of the emerging countries such as Mexico, Russia and India, it lags behind the developed countries, indicating the potential scope for improvement.

**Chart 4: Crop yield* in 2009**

![Crop Yield Chart](chart.png)

*Crop yield is calculated as the weighted average yield of total pulses, total vegetables and melons, total cereals, total coarse grain and total fruits excluding melon, weighted equally for the year 2009

**Bold ambitions in R&D**

Turkey is starting to lay the seeds for its climb up the agricultural value-chain. In February 2011, the government approved the country’s first agriculture “technopark”\(^7\). It aims to become one of the most competitive regions in global agriculture by pursuing high-technology R&D, greenhouse systems and seed and soil improvement. Such ambition has already attracted high profile companies. Monsanto, a multinational agricultural corporation, has several well-established facilities in Turkey where it is conducting trials to improve seed efficiency.

**Exporting new knowledge**

Over the next thirty years, there is opportunity for foreign R&D-intensive companies to enter the Turkish market and for local companies to emerge, benefiting from Turkey’s increasingly educated population and from the favourable policy initiatives to foster innovation. A centre of excellence could be strengthened by the arrival of foreign high-technology firms. The establishment of a centre of excellence in agricultural R&D will help improve productivity in the local agricultural sector, providing a potential boost to other related centres of excellence such as food and beverage processing. Once the industry is more established, regions such as the Middle East and Africa could become fertile grounds for exports of R&D and related services for the agriculture industry. Africa in particular, with its vast stock of under-farmed fertile land, could become an attractive export market for this industry.
Turkey’s hot climate and natural waterways allows a third of its installed capacity to be made up from renewable sources. It is particularly strong in hydroelectric and solar technologies and is expected to use these renewable sources to service a large part of the rising domestic demand for energy. There will be plenty of opportunities for growth; around half of the nation’s potential hydroelectric capacity has yet to be constructed. And whilst Turkey had the second highest solar hot water installed capacity in the world after China in 2009, its high radiation levels make it more suited than most European countries for large-scale generation in the future (see Chart 5 below).

The Aegean coastline is home to several major volcanic fields and potential wind farm locations, yet these sources currently make up only 1 percent of electricity generation.

---

**Chart 5: World radiation levels**

![Chart 5: World radiation levels](image)

Source: Global Energy Network Institute

---

11: Source: The Republic of Turkey Prime Ministry Investment Support and Promotion Agency
**Nurturing national champions**

Over the next thirty years there is the potential for capacity to expand through government and foreign investment in national champions. Driven by the country's present reliance on oil, the government has kick-started investment in energy technologies, spending over US$57 million on environmental R&D since 2005. Foreign investors have already injected over US$2.5 billion in FDI into the alternative and renewable energy sectors since 2008. Some of the largest transactions have seen foreign investors take large stakes in potential national champions, as shown in Table 2 below.

---

**Capitalising on natural advantages**

Once significant scale is achieved, there may be opportunities to export green energy to Europe, as well as capitalise on the local know-how developed to export technology and specialist consulting in this area. These opportunities could help develop a thriving alternative energy centre of excellence in Turkey.

---

**Table 2: Largest M&A deals in the alternative energy sector since 2008**

<table>
<thead>
<tr>
<th>Acquirer</th>
<th>Target</th>
<th>Energy sector</th>
<th>Deal value (US$million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energo-Pro (Czech Republic)</td>
<td>Aralik HPP, Hamzali HPP and Resadiye Cascade</td>
<td>Hydroelectricity</td>
<td>407</td>
</tr>
<tr>
<td>CEZ (Czech Republic)</td>
<td>Akenerji</td>
<td>Natural gas, Hydroelectricity, Wind</td>
<td>303</td>
</tr>
<tr>
<td>Stratkraft (Norway)</td>
<td>Yeşil Enerji</td>
<td>Hydroelectricity</td>
<td>119</td>
</tr>
</tbody>
</table>

Source: The Republic of Turkey Prime Ministry Investment Support and Promotion Agency

---

12: Source: Turkish Statistical Institute
13: Source: Financial Times, FDI Intelligence, 2011
Turkey currently acts as a major regional centre for the manufacture and assembly of automobiles, producing over 1 million vehicles in 2010 and forecast to produce 1.4 million vehicles by 2017. Popular European carmakers such as Renault, Fiat and Ford have benefited from a customs union with the EU that allows Turkey to export non-essential goods to Europe without customs restrictions.

**Pursuing the LCV segment**

Turkey is particularly specialised in the manufacture of light-commercial vehicles (LCVs). This has been fuelled by their advantageous tax treatment at home, which has boosted domestic consumption, and by the requirement for more labour-intensive techniques in the production of these models, where Turkey can offer lower wages relative to developed European economies. LCVs now make up half of total automobile production in Turkey, up from a quarter in 2000. There is the potential for this segment to grow and become a key centre of excellence for Turkey over the next thirty years, as more foreign carmakers partner with Turkish companies to benefit from existing production knowledge and a more competitive labour market, as well as establishing their own independent operations. This process has already begun with Hyundai signing a deal recently that will see Karsan, a Turkish manufacturer, produce 200,000 new LCVs between 2014 and 2021.

**Future growth prospects**

Turkey’s automobile sector as a whole is expected to grow strongly over the next thirty years. Industry experts predict that Turkey could record sales per year of 35 cars per 1000 people by 2041, comparable to German levels today of 40 per 1000 people. Based on the global vehicle assembly and production operations of 5 major international players – General Motors, Ford, Volkswagen, Hyundai and Toyota – Turkey currently already ranks 15th globally in terms of the size of operations based there (see Table 3 below).

<table>
<thead>
<tr>
<th>Country</th>
<th>Units’000</th>
<th>Country</th>
<th>Units’000</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. US</td>
<td>4718</td>
<td>12. India</td>
<td>881</td>
</tr>
<tr>
<td>4. Germany</td>
<td>3642</td>
<td>14. Poland</td>
<td>435</td>
</tr>
<tr>
<td>5. Austria</td>
<td>3339</td>
<td>15. Turkey</td>
<td>402</td>
</tr>
<tr>
<td>7. Japan</td>
<td>1469</td>
<td>17. Slovakia</td>
<td>336</td>
</tr>
<tr>
<td>8. Mexico</td>
<td>1431</td>
<td>18. UK</td>
<td>315</td>
</tr>
<tr>
<td>10. Canada</td>
<td>1308</td>
<td>20. Indonesia</td>
<td>265</td>
</tr>
</tbody>
</table>

Source: Company websites, PwC Analysis,
*General Motors, Ford, Volkswagen, Hyundai and Toyota*

14: Source: International Organization of Motor Vehicle Manufacturers
15: Source: PwC’s Autofacts
16: Source: The Republic of Turkey Prime Ministry Investment Support and Promotion Agency
17: Source: PwC’s Autofacts
Turkey’s performance in some of the key drivers for this industry is on par with other current centres of excellence for this industry; Turkey’s global competitiveness ranks broadly in line with Brazil and Mexico and is relatively higher than large producers such as China, according to the WEF Global Competitive Index (see Chart 6 below). Its exports’ share of the economy is higher than Brazil but lower than Mexico, China and Poland, also it lags behind China, Brazil and Mexico in the amount of FDI aiming at this sector.

**Developing energy-efficient technologies**

To be a significant centre of excellence in automobile production in 2041, Turkey needs to keep pace with the global industry which is moving increasingly towards energy-efficient models, using hybrid and electric technologies. An increasingly skilled labour force would help, but Turkey must also maintain a competitive environment for conducting R&D. The first sign that Turkey will be able to handle this transition came in 2009 when it was announced that Renault would build its new electric-powered saloon in Bursa, a decision which helped the car become the cheapest mainstream electric car to purchase in the UK market.¹⁸

---

¹⁸ Source: PwC’s Autosfacts
Turkey’s aesthetically pleasing coastline, hot climate, historical, cultural and natural attractions make it a popular holiday hotspot. Last year it was the 7th most popular destination in the world, attracting 27 million visitors to its shores and cities. The fact that Turkey’s tourism sector is well diversified allows it to appeal to a broad range of travellers and goes some way to shielding the country against the sector’s volatility. In 2009 the global tourism industry contracted by 3.5% yet arrivals in Turkey grew by nearly 3%.

**Attracting the emerging middle-class**

Turkey is already popular with British, German and Russian tourists – who together make up over a third of all foreign visitors. Over the next thirty years, Turkey is also well positioned to tap into a growing travel-hungry middle class in emerging markets. Currently, a larger proportion of visitors to Turkey come from emerging markets than can be found in established destinations in some developed countries. Approximately 43% of Turkey’s overseas visitors come from emerging economies whilst this segment accounts for less than 22% of visitors in the US and less than 10% in Italy.

A recent lifting of visa requirements has also encouraged more visitors from its eastern neighbours of Iran, Georgia and Syria. These countries now make up 14% of all foreign visitors, up from 9% in 2008. And long-term climate change patterns as projected by Intergovernmental Panel on Climate Change (IPCC) could also result in Turkey moving closer to the “ideal” holiday temperature of 27ºC, appealing to the sun-seeking European travellers. Using a simple model to factor in these future trends shows that Turkey could have the potential to overtake the UK and nearly catch up with Italy in terms of annual arrivals by 2041 (see Chart 7 next page).

---

19: Source: World Tourism Organisation
20: Source: The Republic of Turkey Prime Ministry Investment Support and Promotion Agency
21: Source: Ministry of Culture and Tourism, Turkey
22: Source: Ministry of Culture and Tourism, Turkey; Office for Travel and Tourism Industries, US; Eurostat
Turkey’s tourism infrastructure is likely to be characterised by a mix of mass-tourism seaside resorts, many of which populate the Agean and Mediterranean coastlines of Izmir and Antalya today, and premium-end conurbations. Over the next thirty years, Turkey will look to promote itself more as a cultural and historical destination in an effort to increase revenues in this area. Istanbul, in particular, is increasingly becoming the destination of choice for well-off weekend travellers and the 2010 European Capital of Culture is responding by improving the tourist facilities, including a new museum of modern art. There is the potential for ancillary services to grow around central attractions, creating popular tourist hot spots.

**Chart 7: Annual tourist arrivals index (100=size of country with maximum international tourist arrivals in 2010)**

Source: World Tourism Organisation, IPCC, PwC Analysis
Turkey in 2023 – marking the 100th year anniversary of The Republic of Turkey’s establishment

Laying the seeds for growth
Our long-run growth projection model shows that Turkey has the potential to grow strongly in the medium-term and with economies such as Spain and Canada slowing down in terms of GDP in PPP terms, Turkey is well positioned to catch up.

Over the next 10 years, it is expected to become wealthier with GDP per capita forecasted at around US$20,000 compared to US$14,000 in 2010.

Climbing up the value-chain
Several industries have the potential to make large strides towards establishing a centre of excellence by 2023. The critical mass the country has already developed in food processing, automobile manufacture and tourism should see these industries grow relatively quickly.

By 2023, potential centres of excellence in the R&D-intensive sectors of agricultural technology and alternative energy are likely to be in the earlier stages of development, as it is likely to take longer to establish significant operations in these areas. Over a longer-term horizon, there is the potential for these sectors to develop centres of excellence as Turkey becomes more established as a destination for innovative production and research.
**Methodology**

This section outlines the methodology to forecast the long-term GDP projections outlined in this report.

**GDP projections**

The essence of the model is that long-term trend growth is driven by the following key factors:

- Growth in the labour force of working age (based on the latest UN population projections).
- Increases in human capital, proxied here by average education levels across the adult population.
- Growth in the physical capital stock, which is driven by capital investment net of depreciation.
- Total factor productivity growth, which is driven by technological progress and catching up factor of lower income countries with richer ones by making use of higher-income countries’ technologies and processes.

The emerging economies have stronger potential growth than the established OECD economies on most of these measures, although it should be stressed that this assumes they continue to follow broadly growth friendly policies. In this sense, the projections are of potential future GDP if such policies are followed, rather than predictions of what will actually happen, bearing in mind that some countries may not be able to sustain such policies in practice. There are, of course, also many other uncertainties surrounding these long-term growth projections, so more attention should be paid to the broad trends indicated rather than the precise numbers quoted in the rest of this report. The broad conclusions reached on the shift in global economic power from the G7 to the E7 emerging economies should, however, be robust to these uncertainties, provided that there are no catastrophic shocks that derail the overall global economic development process.
The team works with businesses and governments to identify and assess strategic opportunities and external risks. The team’s consulting services combine strategic analysis of macro trends with strong quantitative techniques across four broad categories outlined below:

**Economy Vision Design**
We work with cities, regions and countries to create or update their economic vision blueprints and strategies.

**Geographical market selection**
We assist growing multinational companies to assess opportunities in new geographical markets.

**Business scenario analysis**
We use our knowledge of macro trends and our econometric toolkit to help companies understand the risks and opportunities in their business.

**Economic impact analysis**
We assist clients in demonstrating the value they bring to their host economies in the context of wider economic trends.

For more information about our services please contact one of the members of the Macro Consulting team below:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Hawksworth</td>
<td>Chief UK Economist</td>
<td>+44 (0) 20 7213 1650 E-mail: <a href="mailto:john.hawksworth@uk.pwc.com">john.hawksworth@uk.pwc.com</a></td>
</tr>
<tr>
<td>William Zimmern</td>
<td>Senior Consultant</td>
<td>+44(0) 207 212 2750 Tel (Mobile): +44(0) 7730 146 351 E-mail: <a href="mailto:william.zimmern@uk.pwc.com">william.zimmern@uk.pwc.com</a></td>
</tr>
<tr>
<td>Himani Gupta</td>
<td>Senior Associate</td>
<td>+44 (0)20 7804 5475 E-mail: <a href="mailto:himani.z.gupta@uk.pwc.com">himani.z.gupta@uk.pwc.com</a></td>
</tr>
<tr>
<td>Robert Vaughan</td>
<td>Associate</td>
<td>+44 (0)20 7212 2521 E-mail: <a href="mailto:robert.p.vaughan@uk.pwc.com">robert.p.vaughan@uk.pwc.com</a></td>
</tr>
</tbody>
</table>

Economic Views reports are produced by PwC’s Macro Consulting team. The team maintains in-house models of over 40 economies which together account for 90% of global GDP. This provides us with the essential understanding of the economic outlook around the world. To this we add systematic and in-depth exploration and analysis of prevailing and emerging trends – economic and otherwise.
Every day, in every corner of the world, clients rely on PwC to help them explore opportunities and deal with complex business challenges. These clients range from the largest, global organisations, to governments and other not-for-profit organisations, to family businesses and to start-ups. We take the time to listen, question and understand their goals and their competitive and regulatory environment. And then we tap into our global network, deep industry expertise, and strong judgement and experience to help each client create the kind of value they are looking for.

The cornerstone of our approach is the belief that developing strong relationships with clients unlocks value and meaningful results—and further strengthens the capabilities of our network. This is how we do business.

PwC firms provide industry-focused assurance, tax and advisory services to enhance value for their clients. More than 169,000 people in 158 countries in firms across the PwC network share their thinking, experience and solutions to develop fresh perspectives and practical advice.

PwC has been operating in Turkey since 1981 with 30 partners and 1250 professional staff enhancing value for our clients and with 5 offices; in Istanbul (2), in Ankara, in Bursa and in Izmir.

For more information visit us at www.pwc.com/tr or contact the members of PwC Turkey below:

Cansen Başaran Symes  
PwC Turkey Territory Senior Partner  
Tel: +90 (212) 326 6102  
E-mail: cansen.basaran-symes@tr.pwc.com

Orhan Cem  
Advisory Services Leader  
Tel: +90 (212) 376 5310  
E-mail: orhan.cem@tr.pwc.com

Zeki Gündüz  
Tax and Legal Services Leader  
Tel: +90 (212) 326 6410  
E-mail: zeki.gunduz@tr.pwc.com

Zeynep Uras  
Assurance Services Leader  
Tel: +90 (212) 326 6114  
E-mail: zeynep.uras@tr.pwc.com