

ifo WORLD ECONOMIC SURVEY

IV
2019

November
Vol. 18

World Economic Climate

The ifo World Economic Climate Has Worsened Again

Advanced Economies

Confidence in Advanced Economies Deteriorates Further

Emerging and Developing Economies

Economic Performance in Emerging Markets and Developing Economies
Reaches Lowest Level Since 2009

Special Question

The Size and Impact of the Shadow Economy Worldwide and in Regions



All time series presented in this document plus additional series for about 70 countries may be ordered from the ifo Institute. For further information please contact Mrs. Ikonomidou-Baumann (surveydata@ifo.de)

Authors of this publication:

Dorine Boumans, Ph.D., email boumans@ifo.de (ifo Center for Macroeconomics and Surveys)

Prof. Friedrich Schneider, email Friedrich.Schneider@iku.at (Research Institute of Banking and Finance, Johannes Kepler University of Linz)



ifo World Economic Survey

ISSN 2511-7831 (print version)

ISSN 2511-784X (electronic version)

A quarterly publication on the world economic climate

Publisher and distributor: ifo Institute

Poschingerstr. 5, D-81679 Munich, Germany

Telephone ++49 89 9224-0, Telefax ++49 89 985369, email ifo@ifo.de

Annual subscription rate: €40.00

Single subscription rate: €10.00

Shipping not included

Editor of this issue: Dorine Boumans, Ph.D., email boumans@ifo.de

Reproduction permitted only if source is stated and copy is sent to the ifo Institute.

The ifo World Economic Climate Has Worsened Again

Confidence in Advanced Economies Deteriorates Further	3
Economic Performance in Emerging Markets and Developing Economies Reaches Lowest Level Since 2009	4
The Size and Impact of the Shadow Economy Worldwide and in Regions	9
Figures	14

NOTES

The World Economic Survey (WES) assesses worldwide economic trends by polling transnational as well as national organisations worldwide on current economic developments in their respective countries. Its results offer a rapid, up-to-date assessment of the economic situation prevailing around the world. In *October 2019*, 1,230 economic experts in 117 countries were polled.

METHODOLOGY AND EVALUATION TECHNIQUE

The survey questionnaire focuses on qualitative information: assessments of a country's general economic situation and expectations regarding key economic indicators. It has proven a useful tool, since it reveals economic changes earlier than conventional business statistics.

The qualitative questions in the World Economic Survey have three possible categories: "good / better / higher" (+) for a positive assessment resp. improvement, "satisfactory / about the same / no change" (=) for a neutral assessment, and "bad / worse / lower" (-) for a negative assessment resp. deterioration; The individual replies are combined for each country without weighting as an arithmetic mean of all survey responses in the respective country. Thus, for the time *t* for each qualitative question and for each country the respective percentage shares (+), (=) and (-) are calculated. The balance is the difference between (+)- and (-)-shares. As a result, the balance ranges from -100 points and +100 points. The mid-range lies at 0 points and is reached if the share of positive and negative answers is equal.

The survey results are published as aggregated data. For aggregating the country results to country groups or regions, the weighting factors are calculated using the gross domestic product based on purchasing-power-parity of each country.

ifo World Economic Climate Deteriorates

The ifo World Economic Climate has worsened again, with the indicator falling in the fourth quarter from -10.1 to -18.8 points. Both the assessment of the current situation and expectations dropped significantly as the global economy continues to cool. There was a deterioration of the economic climate in nearly all regions. Assessments of the current situation were unfavorable particularly in emerging markets, while in advanced economies it was primarily the estimates for the coming months that declined. In emerging markets, the downward trend was based mostly in Asia; in advanced economies, it was concentrated in the US. The experts expect significantly weaker growth in world trade, weaker private consumption, and lower investment activity. Compared to May of this year, there was a marked increase in the proportion of experts who rate macroeconomic demand and innovation as insufficient.

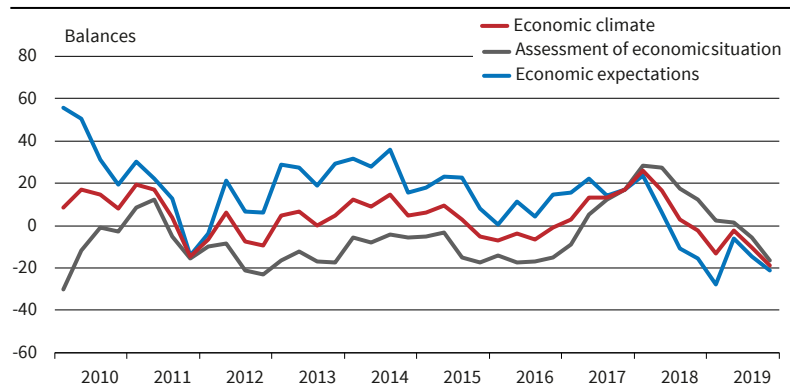
current situation dropped for the seventh quarter in a row. Expectations also clouded over. The slowdown in the euro area continues. The economic climate in **Germany, Spain, Austria, and Finland** continued to fall. The WES experts assessed both the current situation and the expectations as worse than in the previous quarter. While there were hardly any changes in **France** and **Belgium**, respondents in **Italy** were increasingly optimistic, albeit starting from a very low level. Experts in the euro area significantly lowered their expectations for exports and imports. Investment expectations also continued to deteriorate. More respondents rated trade barriers and the lack of demand as problematic (see Table 1). Inflation expectations for this year dropped from 1.5 percent to 1.3 percent, while medium-term expectations for 2024 dropped from 1.9 to 1.8 percent (see Figure 4).

CONFIDENCE IN ADVANCED ECONOMIES DETERIORATES FURTHER

The economic climate amongst the advanced economies deteriorated further this quarter. The indicator dropped from -8.2 to -17.7, the lowest level since October 2012 (see figure 10.1). Experts consider the current situation to be satisfactory, but are pessimistic about the coming six months. Trade tensions continue to weigh heavily on economic sentiment in these advanced economies: trade expectations are again at their lowest level since 2009 (see Figure 8). Also, weaker private consumption and lower investment activity are expected in the months ahead. An increasing proportion of experts expect short- and long-term interest rates to fall. The ifo Economic Climate for the **euro area** has worsened in the fourth quarter. It decreased from -6.7 to -16.3 points, plummeting to its lowest level since spring 2013. The experts' assessment of the

Figure 1

ifo World Economic Climate



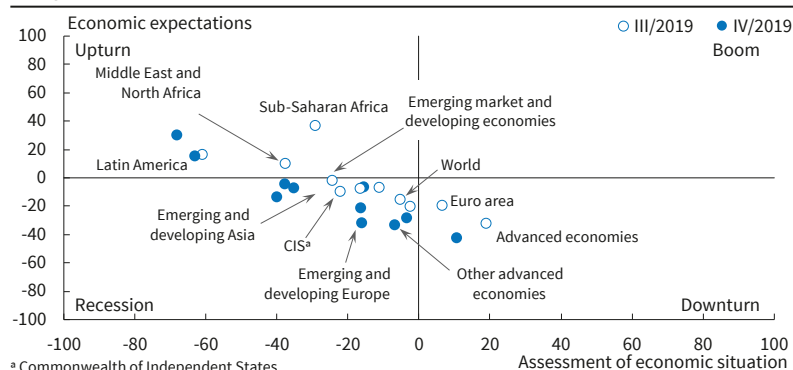
Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 2

ifo Business Cycle Clock for Selected Country Groups

Change from III/2019 to IV/2019; balances



^a Commonwealth of Independent States.

Source: ifo World Economic Survey (WES) IV/2019.

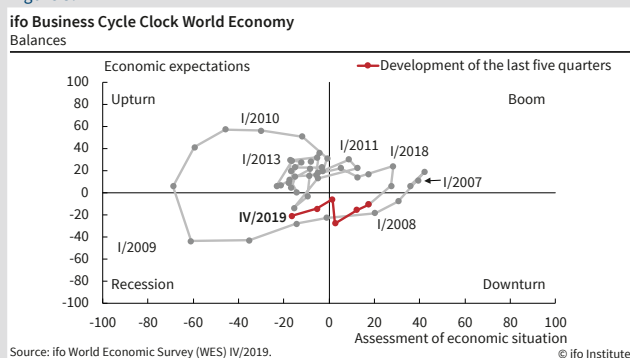
© ifo Institute

IFO BUSINESS CYCLE CLOCK FOR THE WORLD ECONOMY

A glance at the ifo Business Cycle Clock, showing the development of the two components of the economic climate in recent years, can provide a useful overview of the global medium-term forecast. The business cycle typically proceeds clockwise in a circular fashion, with expectations leading assessments of the present situation.

According to the results of the October survey, the ifo indicator for the world economy moved further into the recession quadrant. This ongoing negative development was mainly driven by experts' assessments of the economic situation, which were more pessimistic than in the previous quarter. In combination with negative economic expectations, the indicator dropped slightly and to the left as a result.

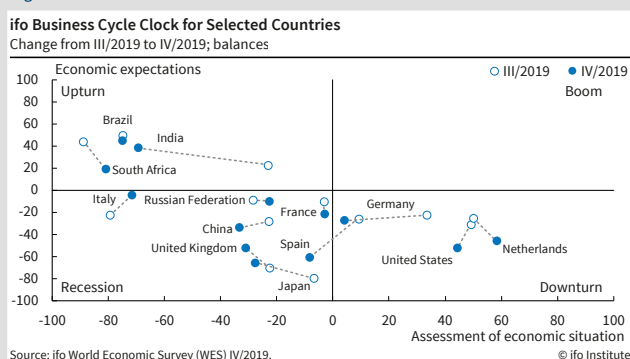
Figure 3.1



To further analyze which countries are the main drivers behind this slight deterioration, we took the main advanced economies and key emerging markets in the Business Cycle Clock above and plotted them below to visualize the change from the previous quarter (see Figure 3.2). All advanced economies are now in either the downturn or the recession quadrant, with economic expectations giving no indication of an upturn in the coming months.

Respondents were more pessimistic in their assessments of the economic situation for the United States, Germany, the United Kingdom, Spain, and Japan. Experts in the Netherlands, while more positive about current economic performance, further scaled back their economic outlook. In Italy both indicators improved, moving the country to the brink of an economic upturn. Only for Spain and the United States did both indicators drop, with Spain moving from the downturn into the recession quadrant. The emerging markets of Brazil, South Africa, and India remain in the upturn quadrant, although India again saw a drastic deterioration of its economic situation.

Figure 3.2



The ifo World Economic Climate is the geometric mean of the assessments of the current situation and economic expectations for the next six months. The correlation of the two components can be illustrated in a four-quadrant diagram (the ifo Business Cycle Clock). The assessments of the present economic situation are positioned along the X-axis, the responses on economic expectations on the Y-axis. The diagram is divided into four quadrants, representing the four phases of the business cycle. For example, the upturn phase (top left quadrant) represents negative assessments and at the same time positive expectations.

OTHER ADVANCED ECONOMIES

The economic climate indicator in the **United States** turned negative for the first time since the fourth quarter of 2012. The indicator dropped by -14.9 points to reach -9.7 points. This worsening of the economic climate is based on further increasingly pessimistic assessments of the economic outlook. The current situation is still as assessed as very favorable, although slightly less so than in the previous quarter (see Figure 11.3). In **Japan**, the economic climate indicator remained at the same low level as in the previous quarter, as expectations were more optimistic but the assessment of the current situation was worse than in the previous survey (see Figure 11.2). In the **United Kingdom**, experts turned slightly more optimistic regarding the months ahead. This had a positive influence on the economic climate, which improved by 6.1 points. Nevertheless, the assessments of the current situation dropped further by 8.5 points (see Figure 11.3).

EMERGING MARKETS AND DEVELOPING ECONOMIES FACE A RENEWED DOWNTURN

The economic climate of **emerging markets and developing economies** worsened again this quarter. This is the fifth consecutive quarter where the climate indicator is in negative territory. The economic outlook did not change much, but experts remain sceptical. The assessment of the current situation dropped again to reach -37.9 points, the most negative level since second quarter of 2019 (see Figure 10.1). Like the advanced economies, experts expect continuing headwinds from the China-US trade tensions. Trade expectations are at their lowest level in more than ten years (see Figure 8). An increasing share of respondents expect both short- and long-term interest rates to decrease (see Figure 9).

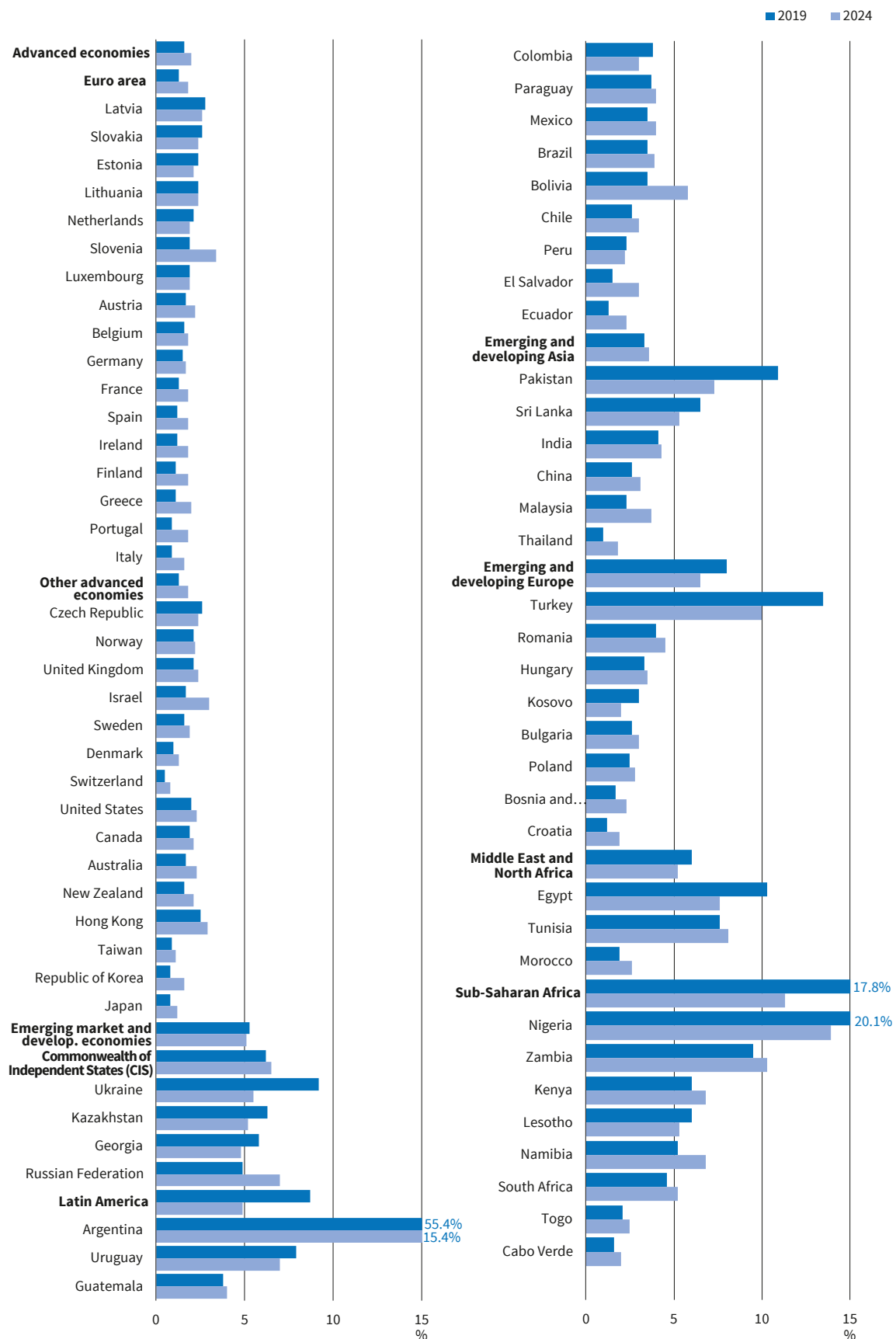
The economic climate for important emerging markets (**Brazil, Russia, India, China, and South Africa – BRICS**) continued its decreasing trend. The indicator fell to -27.0 balance points, from -18.1 in the previous quarter (see Figure 10.1). The assessment of the present economic situation was the most negative since the middle of 2009. This mainly reflects the strong downward revision for **India** (see Figure 12.2). Current economic performance was as assessed as very poor, and the indicator reached its lowest level since 1999. Domestic consumption is assessed by 84.6 percent of the Indian WES experts to be insufficient. This is a clear increase, as in April only 38.5 percent of the experts identified demand as problematic. The economic climate for **Brazil, China, Russia, and South Africa** also decreased, however not as strikingly as in **India**.

OTHER EMERGING MARKETS

In **emerging and developing Asia**, the climate indicator fell, from +12.1 to -21.9 balance points. The **ASEAN-5** countries (comprising **Indonesia, Malaysia, the Philip-**

Figure 4

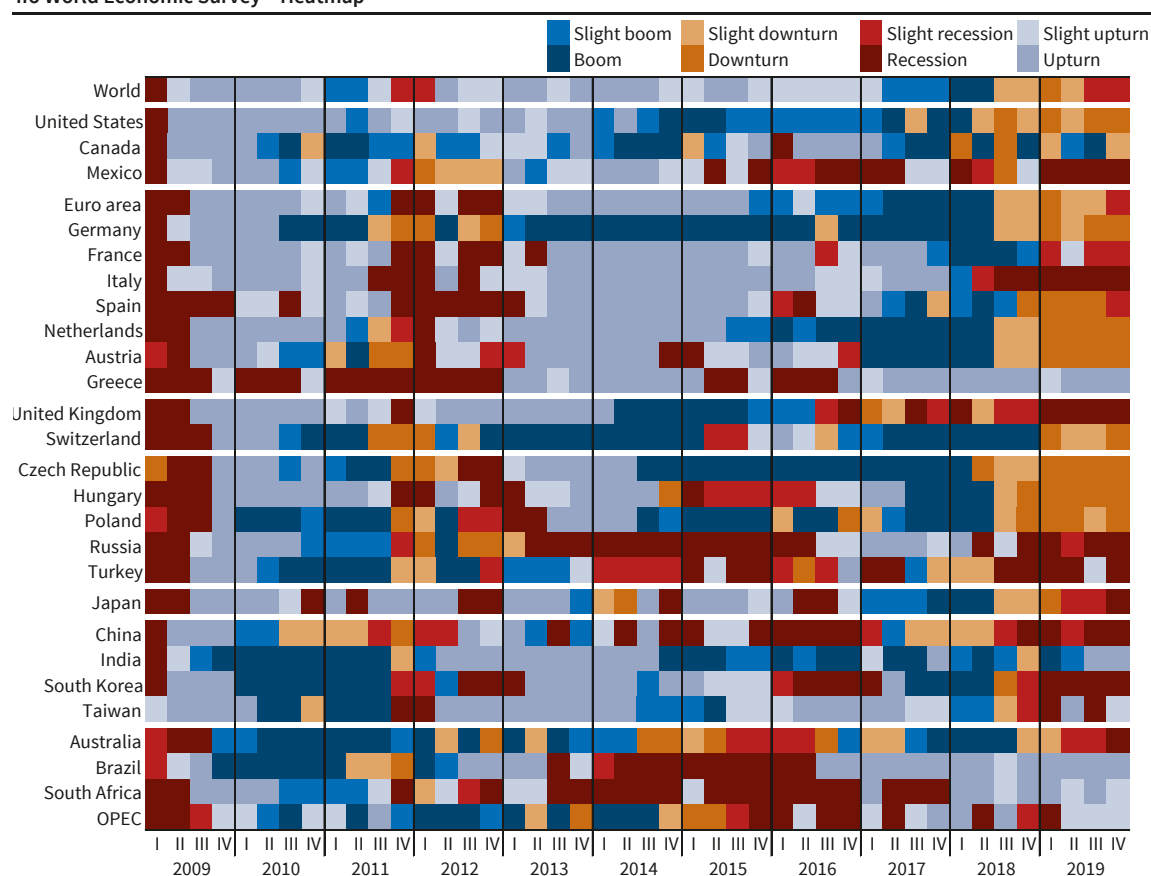
Inflation rate expectations for 2019 and 2024
Country groups^a and countries



^a To calculate country groups, country weights are based on gross domestic product based on purchasing-power-parity (PPP) in international dollars (database IMF's World Economic Outlook).
Source: ifo World Economic Survey (WES) IV/2019.

Figure 5

ifo World Economic Survey – Heatmap ^a



^a The assessments of the current situation and economic expectations for the next six months are visualised by a four colour scheme that illustrates the four phases of a business cycle: boom, downturn, recession, upturn. The transition areas between these four phases are illustrated with lighter colours and are defined as follows: Slight boom when the current situation is smaller than +20. Slight downturn when expectations are between 0 and -20. Slight recession when the current situation is between 0 and -20. Slight upturn when expectations are smaller than +20.

Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

pinex, Thailand, and Vietnam) saw a further downturn in their economic climate, from 21.3 to 8.2 balance points. The present economic situation plunged downward, and the economic outlook was less positive than three months ago (see Figure 10.1). Of the respondents for ASEAN-5 countries, 92.3 percent report lack of skilled labor and 94.1 percent report corruption to be a problem for the economy of their countries. (See Table 1)

The economic climate indicator for **emerging and developing Europe** dropped by -15.2 points to reach -24.1 on the balance scale (see Figure 10). Although both indicators were revised downwards, the biggest drop came in experts' expectations regarding the months ahead. With a fall of -25.3, this indicator now stands at -31.6, which is the most pessimistic outlook since 2009. The respondents are mainly critical about economic policy implemented in their countries. In addition, 77.5 percent of the respondents cite that there is a capital shortage in their country.

The economic climate for **Latin America** deteriorated slightly, from -26.4 to -28.2 balance points. Both the current situation and the economic outlook were slightly less favorably assessed (see Figures 2 and 10.2). This region also remains affected by the ongoing trade tensions, and trade expectations reached their

lowest levels in nearly four years (see Figure 8). Lack of innovation and inadequate infrastructure are still cited as the biggest problems that the economies of Latin America face. Demand is cited as insufficient by 76.7 percent of the respondents. This is 16.0 percent more than in May of this year. Economic activity is expected to remain sluggish in all Latin American countries, except for **El Salvador** and **Guatemala**. Also, **Chile** saw its climate indicator drop by -18.6 points to reach -5.1 on the balance scale. The assessments of the current situation remained negative at -10.0, the economic outlook clouded over by -40.0 points. This may be due to the lingering trade tensions and depressed consumer sentiment. But the recent riots in Chile, sparked by a transportation fare increase, also feed into this. The economic climate indicator in **Mexico** showed a surprising improvement, as experts are more positive regarding the months ahead. Nevertheless, at -41.3 points on the balance scale economic activity remains depressed.

The economic climate for the **Commonwealth of Independent States (CIS)** slightly recovered and the indicator improved by 4.9 points and now points at -10.9 on the balance scale. Assessments of both the current situation as well as the economic outlook improved,

but remain negative. Economic activity in **Azerbaijan, Armenia, and Kazakhstan** is assessed as very favorable. In **Russia, Ukraine, and Georgia** on the other hand, economic activity seems to be slowing down, as economic expectations remain pessimistic. The respondents almost unanimously report that corruption is the most pressing problem hindering the economy now. However, lack of innovation comes as a close second.

The economic climate for countries in the **Middle East and North Africa (MENA)** deteriorated considerably. The respective indicator fell from -15.2 to -27.2 balance points. Experts in this region revised their assessments of the current situation slightly downwards. This indicator now stands at -40.1, which attests to weak current economic performance in all countries of this region. The previously positive economic outlook deteriorated in this survey (see Figures 2 and 10.2). Regional inflation for 2019 is set at 6.0 percent (see Figure 4). As in the CIS countries, WES experts here, too, report corruption and a lack of innovation to be weighing on economic activity in this region. Trade barriers to exports, however, saw the biggest increase compared to May; 59.0 percent of the respondents now consider these as hindering the economy, an increase of 36.9 percentage points.

In **Sub-Saharan Africa**, the economic climate dropped from +1.1 to -25.7 balance points, mainly due to a very meagre assessment of current economic performance. Although the experts surveyed continue to be optimistic about the months ahead, here, too, assessments were revised downwards. Corruption and widening income inequality continue to be the most pressing issues, although here, too, more respondents than in May 2019 (40.4 percent) indicate trade barriers to exports to be hindering the economy.

Table 1

Economic Problems Ranked by World Importance*

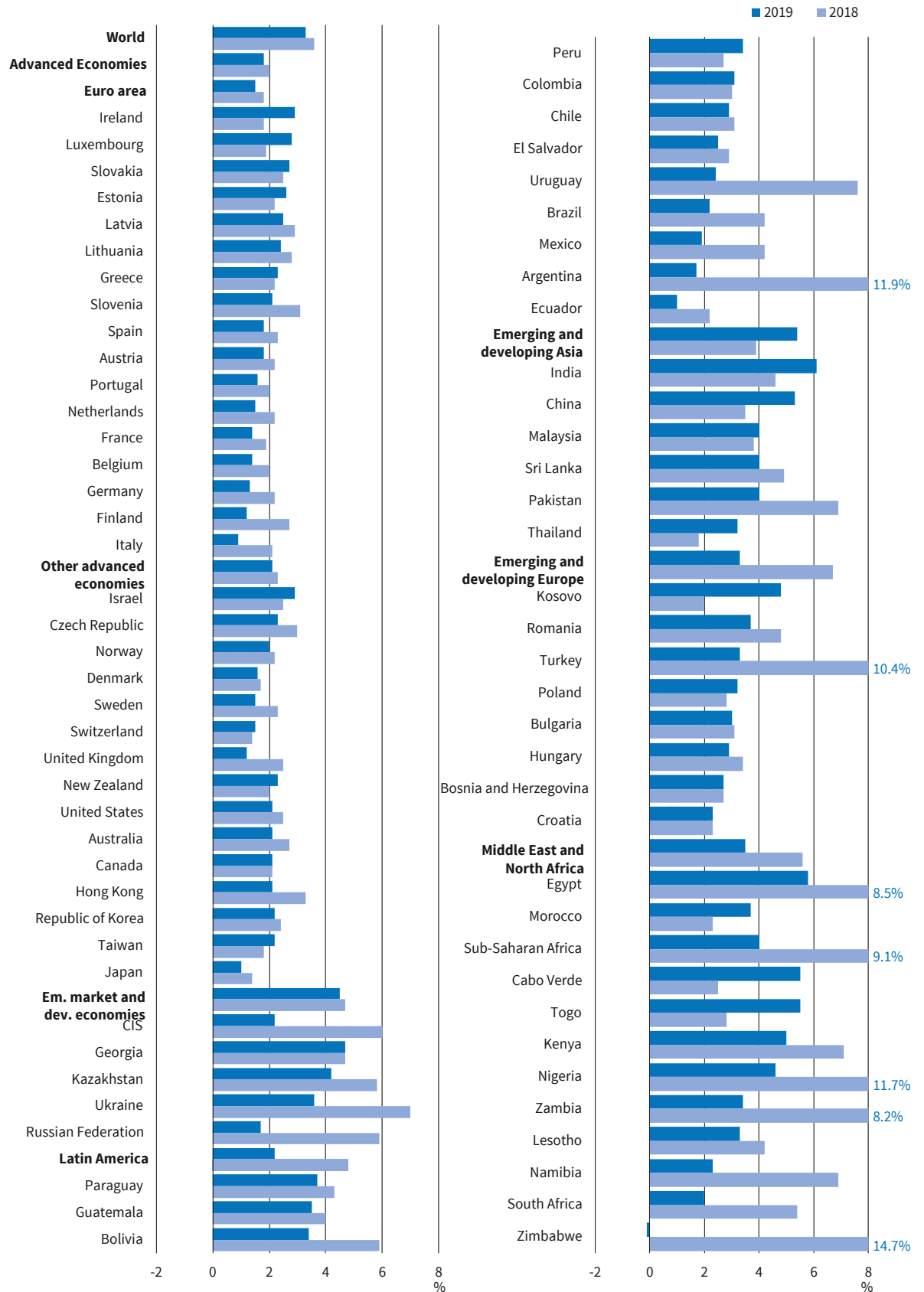
	World	Advanced Economies	Emerging and Developing Economies	EU	Developing Europe	Developing Asia	Latin America	CIS	MENA	Sub-Saharan Africa
Widening income inequality	73.9	65.5	80.6	53.3	65.4	86.7	64.7	78.4	59.1	92.5
Lack of skilled labor	62.8	58.8	65.9	67.9	71.5	66.3	53.3	69.5	64.6	85.6
Lack of innovation	60.8	45.9	72.5	62.6	86.2	65.9	83.2	92.3	74.9	75.7
Lack of confidence in government's econ. policy	57.1	63.2	52.4	61.4	79.2	38.6	70.7	81.6	66.4	85.7
Inadequate Infrastructure	55.4	58.4	53.0	56.8	67.9	39.7	87.5	79.0	40.4	83.2
Corruption	53.0	32.5	69.2	29.4	72.4	61.6	78.7	94.3	74.2	94.9
Insufficient demand	48.0	35.7	57.8	39.9	42.7	52.8	76.7	84.0	64.3	40.8
Legal and administrative barriers for business	47.7	31.5	60.6	43.9	58.4	57.7	60.3	78.7	59.9	76.0
Lack of international competitiveness	46.6	35.2	55.6	39.5	67.1	43.9	73.3	86.4	66.7	86.3
Trade barriers to exports	44.4	46.9	42.3	28.3	20.5	42.7	41.5	40.0	59.0	59.6
Unfavorable climate for foreign investors	43.8	31.7	53.4	31.8	60.0	49.0	54.3	65.0	60.0	76.4
Inefficient debt management	35.0	24.4	43.3	22.3	62.9	47.5	21.7	10.7	48.3	71.5
Political instability	34.7	47.3	24.7	42.3	61.0	12.6	51.6	12.3	39.2	65.4
Capital shortage	26.8	10.3	39.8	21.4	77.5	29.5	46.8	53.7	46.2	76.2
Lack of credible central bank policy	20.4	9.2	29.3	11.5	54.2	30.0	10.9	17.4	37.6	50.6

*Based on percentages of experts indicating their country is facing this problem at the moment. The weighting factors used to aggregate the country results into country groups or regions are calculated using each country's gross domestic product based on purchasing power parity (database IMF's World Economic Outlook). Highlighted problems are the top 3 most important economic problems for each country group.

Source: ifo World Economic Survey (WES) IV/2019.

Figure 6

GDP growth rate expectations over the next 3 to 5 years VI/2019 and VI/2018
 Aggregates^a and countries



^a To calculate aggregates, country weights are based on gross domestic product based on purchasing-power-parity (PPP) in international dollars (database IMF's World Economic Outlook).
 Source: ifo World Economic Survey (WES) IV/2019.

THE SIZE AND IMPACT OF THE SHADOW ECONOMY WORLDWIDE AND IN REGIONS

Dorine Boumans and Friedrich Schneider

INTRODUCTION

The shadow economy is, by nature, difficult to measure, as agents engaged in shadow economy activities try to remain undetected. The quest for information on the extent of the shadow economy and its developments over time is motivated by its political and economic relevance. Moreover, an understanding of total economic activity, including official and unofficial production of goods and services, is essential in the design of economic policies that respond to fluctuations and economic development over time and across space. Furthermore, the size of the shadow economy is a core input to estimate the extent of tax evasion and thus for decisions on its adequate control.

The shadow economy is known by different names, such as the hidden economy, gray economy, black economy or lack economy, cash economy, or informal economy. All these synonyms refer to some type of shadow economy activities. We use the following definition: the shadow economy includes all economic activities that are hidden from official authorities for monetary, regulatory, and institutional reasons. Monetary reasons include avoiding paying taxes and all social security contributions; regulatory reasons include avoiding governmental bureaucracy or the burden of the regulatory framework; while institutional reasons include corruption, the quality of political institutions, and weak rule of law. For our study, the shadow economy reflects mostly legal economic and productive activities that, if recorded, would contribute to national GDP, therefore the definition of the shadow economy in our study tries to avoid illegal or criminal activities, do-it-yourself, or other household activities.¹

In the fourth quarter of the World Economic Survey we asked the respondents to fill out a short survey on the size of the shadow economy and various reasons why people work in the shadow economy as well as in which economic sectors it is most common to work in the shadow economy. In this report we present the results of this survey. Our main aims are:

1. to show the size of the shadow economy in 110 countries as calculated from the survey results and the perceived development in the last 10 years
2. to set out the main driving forces of the shadow economy and the differences between countries
3. to give an overview what economic experts consider the most likely policy responses to reduce the shadow economy in their country

Empirical research into the size and development of the global shadow economy has grown rapidly (Gerx-

hani 2003, Feld and Schneider 2010, Slemrod and Weber 2012, Schneider 2011, 2015, 2017, Schneider and Williams 2013, Hassan and Schneider 2016, Williams and Schneider 2016, and Medina and Schneider 2017). The main goal of all these papers is to analyze the growth of knowledge about the size of the shadow economy in a review covering as many years as possible, concentrating mainly on knowledge about established macro estimation methods (like the MIMIC or currency demand approach); to define or categorize the shadow economy; as well as to present estimates of the size of the shadow economy for 158 countries over 25 years. In our paper we want to go a different way by asking economists in different countries about their assessment of the shadow economy. Table 2 gives a comparison of the size of the shadow economy using the MIMIC² approach as well as the estimation of the WES-experts in selected countries³. There are only seven countries of which the difference between the estimated size of the shadow economy differs by more than 5 percentage points compared to the MIMIC approach. This speaks to the knowledge of the WES experts about the shadow economy in their respective countries.

² The calculation of the size and development of the shadow economy is done with the MIMIC (Multiple Indicators and Multiple Causes) estimation procedure. Using the MIMIC estimation procedure one gets only relative values and one needs other methods like the currency demand approach or the income discrepancy method, to calibrate the MIMIC values into absolute ones. For a detailed explanation of these calculation methods see Friedrich Schneider, editor, *Handbook on the Shadow Economy*, Cheltenham (UK): Edward Elgar Publishing Company, 2011, and Friedrich Schneider and Colin C. Williams, 2013, *The Shadow Economy*, The Institute of Economic Affairs, IEA, London, 2013, and Colin C. Williams and Friedrich Schneider (2016), "Measuring the Global Shadow Economy", Cheltenham, (UK), Edward Elgar Publicity Company, 2016.

³ For these countries the data on the shadow economy using the MIMIC approach was available for 2019.

Table 2

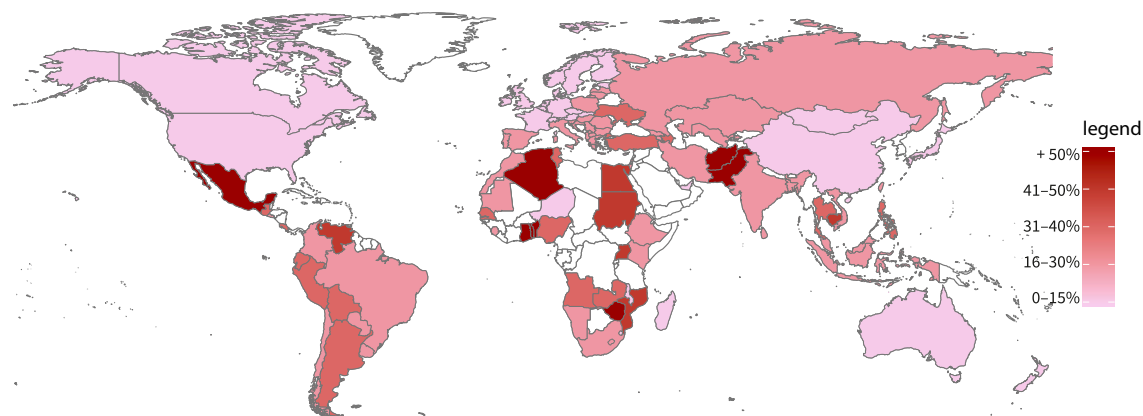
Comparison of Percentage of Shadow Economy as Percentage of GDP Using the MIMIC-method and Expert Expectations

Country	MIMIC	Expert Expectations
Austria	6,1	13,9
Belgium	15,1	12,8
Bulgaria	30,1	22,7
Croatia	26,4	17,7
Czech Republic	13,1	12,5
Denmark	8,9	5,4
Estonia	22,1	10,8
Finland	10,6	5,7
France	12,4	8,8
Germany ¹⁾	8,5	10,8
Greece	19,2	24,6
Hungary	23,2	17,6
Ireland	8,9	6,8
Italy	18,7	19,4
Latvia	19,8	22,0
Lithuania	21,9	18,0
Luxembourg (Grand-Duché)	7,4	3,9
Netherlands	7,0	8,5
Poland	20,7	18,3
Portugal	15,4	16,8
Romania	26,9	28,4
Slovenia	21,5	17,5
South-Cyprus	22,1	12,7
Spain	15,4	16,5
Slovakia	12,2	10,6
Sweden	10,7	9,7
United Kingdom	9,6	11,4
Norway	10,8	7,0
Switzerland	5,5	6,9
Turkey	29,4	30,7
Australia	8,9	7,6
Canada	9,4	6,9
Japan	8,2	11,1
New Zealand	6,8	9,5
United States USA	4,8	9,1

Source: ifo World Economic Survey (WES) IV/2019 & Schneider (2019).

¹ Of course, we are aware that there are overlapping areas, like prostitution, illegal construction firms, compare e.g., Williams and Schneider (2016), Schneider (2017), and Medina and Schneider (2017)

Figure 7.1
Estimation of the Shadow Economy in Relation to GDP



Source: ifo World Economic Survey (WES) IV/2019.

THE SIZE OF THE SHADOW ECONOMY – WORLD-WIDE AND IN REGIONS

The total share of the shadow economy in the world is estimated by the WES experts at 18.32 percent, when taking the mean of all answers. Figure 7.1 gives an overview on the variability of the shadow economy in the different countries as estimated by the WES experts. Looking at regional differences, a distinction between advanced and emerging and developing economies becomes clear. This is as such not surprising. The difference between the European Union, the United States, and other advanced economies is perhaps less expected. As Figure 7.2 shows, the predicted share of the shadow economy in the United States and in the other advanced economies is below 10 percent of GDP, whereas economists in the European Union indicate that the share of the shadow economy lies around 15 percent. In the European Union, the countries with the highest share of shadow economy are Romania (with 28.4 percent), Greece (24.6 percent), Bulgaria (22.7 percent), Latvia (22.0 percent) and Italy (19.4 percent). In the United States, the respondents estimate the shadow economy to be 9.1 percent.

To get a better picture of developments in each country, we asked the experts to assess whether the shadow economy has grown or actually shrunk in the last ten years. As Figure 7.3 shows, respondents especially in the European Union, in the Commonwealth of Independent States, and in emerging and developing Asia reported a decrease in the shadow economy in the last ten years. The biggest increases were reported in Sub-Saharan Africa as well as in the Middle East and Northern Africa. In Latin America also, more economists reported an increase rather than a decrease in the shadow economy. In the United States and other advanced economies, the shadow economy allegedly stayed the same in the last ten years.

In response to whether the shadow economy is hindering or boosting the overall economy, most experts in the United States and in the other advanced economies report that the shadow economy does not influence economic growth in their countries (See Figure 7.4). In the European Union, on the other hand, a considerable share of experts report that the shadow economy is hindering economic growth in their countries. This can be traced back to the southern and eastern European countries, namely Italy, Portugal, and Spain as well as Hungary, Romania, Latvia, Lithuania, and Slovakia. Moreover, in emerging and developing Europe, most respondents consider the shadow economy to have a negative effect on the economy of their country. In Sub-Saharan Africa, most experts believe the shadow economy is boosting the economy of their countries. In the Commonwealth of Independent States, emerging and developing Asia, Latin America, as well as the Middle East and North Africa, experts are more divided on the issue of whether the shadow economy is hindering or boosting economic growth.

THE MAIN DRIVING FORCES OF THE SHADOW ECONOMY

The shadow economy does not affect each sector of the economy in an equal manner. In addition, as economies are also not similar across the world, we asked the respondents of the survey to assess in which sectors of their economy undeclared work is most common (See Table 5). Across the world, experts believe undeclared work is least common in the financial and insurance sector. In contrast, the household sector is the sector most likely to have undeclared work according to all respondents across the world. Turning to the advanced economies – the EU, the US, and other advanced countries – manufacturing and information & communications services are the economic sectors where the

respondents believe it is uncommon to have any undeclared work. In the European Union, WES experts believe undeclared work to be most prevalent in construction, the household sector, and tourism. In the US, the respondents believe undeclared work is common only in the household sector. In all other sectors, it is classified as either occasional or uncommon. In the emerging and developing countries, experts consider that undeclared work is common in construction, the household sector, tourism, mining & fisheries, wholesale and retail trade, transportation, and storage.

The main reasons why people are working in the shadow economy also differ across countries (See Table 3). When looking at the different regions, it becomes clear that the number one reason in each country group is to avoid paying taxes and social security contributions. In second and third place come the opportunity to earn money in an easy way and to circumvent labor regulations as the driving forces of why people are working in the shadow economy. In the Middle East and North Africa, Latin America, emerging and developing Europe, as well as the CIS countries, demand for cheaper prices is also amongst the most often cited reasons for working in the shadow economy. Although a lack of confidence in public authorities and institu-

tions is the least often cited reason taking all answers together, according to economists in Sub-Saharan Africa it is the third most mentioned reason why people work in the shadow economy in their country. In the CIS countries and in developing Europe, the government's wasting of taxpayer's money is considered one of the main reasons. The opportunity to sidestep paperwork is considered important only in the US and in emerging and developing Asia.

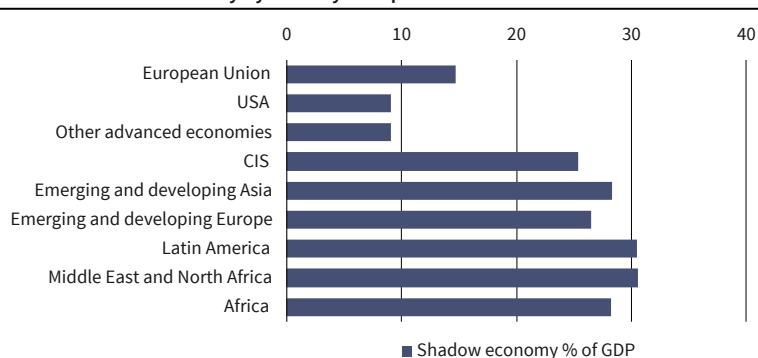
THE MOST EFFECTIVE POLICY OPTIONS TO REDUCE THE SHADOW ECONOMY

Taking all answers of the survey together, most experts mention improving the rule of law as the most effective approach to reducing the shadow economy. This is closely followed by forced electronic payments, and more frequent tax audits and heavier penalties in the case of tax evasion (See Table 4). However, all policy options were cited by 20 percent of the respondents as possible options. Setting limits for cash payments (only mentioned by 9.8 percent) and lighter labor regulation (16.1 percent) are not considered to be effective policy options. When looking at different country groups, it becomes clear that improving the rule of law

is mainly an option considered by respondents from emerging and developing countries. In contrast, economists from advanced economies prefer forced electronic payments or more frequent tax audits and heavier penalties for tax evasion as policy options. On the African continent, respondents are mostly in favor of decreasing bureaucracy to register as self-employed or to register a business. This is also a popular option among the other country groups with the exception of the EU and US. In the European Union, lower social security costs are the second preferred option; in the US, it is higher wages after taxes. Another difference between the US and Europe is that only 8.7 percent of US respondents consider tax cuts an effective option for reducing the shadow economy, whereas 24.1 percent of EU respondents believe tax cuts may be effective. The US has seen a big tax cut for businesses in recent years, which might explain the difference between the EU and US regarding that policy option.

Figure 7.2

Size of the Shadow Economy by Country Groups

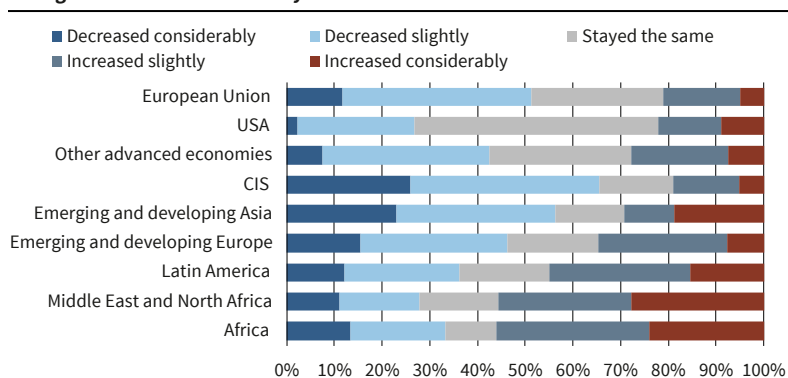


Source: ifo World Economic Survey IV/2019.

© ifo Institute

Figure 7.3

Change of the Shadow Economy in Relation to Total GDP in the Last Ten Years



Source: World Economic Survey IV/2019.

© ifo Institute

Table 3

The Main Reasons Why People Work in the Shadow Economy by Country Group*

	European Union	USA	Other advanced economies	CIS	Emerging and developing Asia	Emerging and developing Europe	Latin America	MENA	Subsaharan Africa
Avoid paying taxes and social security contributions	75,8	69,4	64,1	73,9	58,8	73,8	67,0	39,4	60,0
People are of the opinion that governments waste taxpayers money	10,4	5,8	7,2	14,9	16,5	18,5	7,3	20,0	20,7
To satisfy the demand for lower prices	15,5	7,3	19,0	14,9	12,3	19,2	15,8	32,2	9,5
Circumvent mostly labor regulations	24,5	34,4	27,5	10,7	24,4	17,3	35,6	25,0	21,7
To earn extra money in a easy way	44,2	32,3	50,6	43,2	32,7	42,3	30,8	31,1	34,9
Little confidence in public authorities and or institutions	6,8	4,6	3,4	22,4	20,0	10,4	12,4	30,6	21,8
Sidestep paper work	9,8	22,5	13,4	6,8	19,0	4,6	9,8	10,0	15,1

*Note: Percentages are based on the ranking of the three most important reason of people working in the shadow economy. The combined result represents the weighted ranking. The reason that was ranked first was weighted with 1, the second reason with 0.6 and the third reason with 0.3.

1st reason
2nd reason
3rd reason

Source: ifo World Economic Survey (WES) IV/2019.

Table 4

Recommended Policy Options to Reduce the Shadow Economy by Country Group*

	European Union	USA	Other advanced economies	CIS	Emerging and developing Asia	Emerging and developing Europe	Latin America	MENA	Subsaharan Africa
Improving the rule of law	19,0	17,9	14,4	49,8	38,7	41,9	36,4	27,2	28,3
More frequent tax audits and heavier penalties for tax evasion	25,7	33,0	34,1	7,3	16,4	30,0	11,6	27,2	16,8
Setting limits for cash payments	10,4	5,7	18,9	10,8	8,7	8,8	2,9	3,3	6,3
Higher wages after taxes	22,3	22,3	15,0	22,7	13,4	20,4	17,4	10,0	20,8
Decreased bureaucracy to register a business or as self-employed	16,1	20,9	21,6	26,5	36,0	10,8	30,8	41,1	38,1
Tax cuts	24,1	8,7	18,6	25,2	26,2	32,3	16,0	6,7	31,3
Forced electronic payments	27,6	33,2	29,9	14,5	17,4	20,4	14,1	28,9	14,2
Less labor regulation	13,1	21,3	18,6	12,0	14,9	7,7	27,5	19,4	20,3
Lower social security costs	26,6	7,9	10,9	16,3	10,8	15,4	21,3	21,1	5,9

*Note: Percentages are based on the ranking of the three best policy options. The combined result represents the weighted ranking. The policy option that was ranked first was weighted with 1, the second policy with 0.6 and the third option with 0.3.

1st policy option
2nd policy option
3rd policy option

Source: ifo World Economic Survey (WES) IV/2019.

Table 5

The Extent of People Working in the Shadow Economy by Sector and Country Group^a

	European Union	USA	Other advanced economies	CIS	Emerging and developing Asia	Emerging and developing Europe	Latin America	Middle East and Africa	Sub-Saharan Africa
Construction	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Household Sector	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Tourism etc.	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Mining, fishing, agriculture	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Manufacturing	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Financial and insurance services	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Human health and social activities	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Information and communication	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Wholesale and retail trade	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common
Transportation and storage	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common	Very common - common

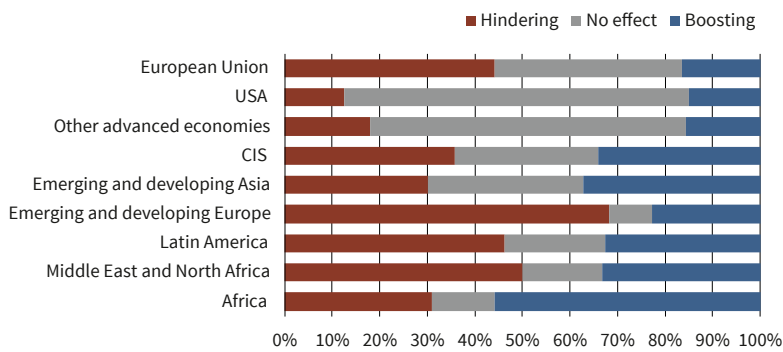
^aThe table shows the mean answers for each sector by country group. We asked the WES experts to indicate whether it was "very common" to "not at all" that people would work in that particular sector.

Very common - common
Occasional
Rare - Not at all

Source: ifo World Economic Survey (WES) IV/2019

Figure 7.4

Change of the Shadow Economy in Relation to Total GDP in the Last 10 Years



Source: World Economic Survey IV/2019.

© ifo Institute

CONCLUSION

The share of the shadow economy differs across countries and economic sectors. It is to be expected that advanced economies show more similarities amongst each other compared to the emerging and developing economies. Strikingly, the estimated shadow economy in the European Union is considerably bigger than the estimated shadow economy in the US and other advanced economies. The household sector is the area in which most respondents from both advanced as well as emerging economies think it is most likely to find people working in the shadow economy. Respondents from the EU add the construction sector and tourism to this list. Given the differences in institutional development, the rule of law, and the integration of electronic bank accounts into daily business activities, different policy options are needed in different countries to effectively address people working in the shadow economy.

REFERENCES

Undeclared Earnings in OECD Countries. *German Economic Review*, 11: 109-149. doi:10.1111/j.1468-0475.2010.00509.x

Slemrod, J. & Weber, C. (2012). "Evidence of the invisible: toward a credibility revolution in the empirical analysis of tax evasion and the informal economy". *International Tax & Public Finance* 19: 25. <https://doi.org/10.1007/s10797-011-9181-0>

Schneider, F. (ed.) (2011), *Handbook on the Shadow Economy*, Edward Elgar, Cheltenham.

Schneider, F. (2015) Schattenwirtschaft und Schattenarbeitsmarkt: Die Entwicklungen der vergangenen 20 Jahre, *Perspektiven der Wirtschaftspolitik* 16(1), 3-25

Schneider, F., (2017), Estimating a Shadow Economy: Results, Methods, Problems, and Open Questions, *De Gruyter Open, Open Economics* 2017/1, pp. 1-29.

Schneider, F. and Williams, C., "The Shadow Economy", *Institute of Economic Affairs*, 2013. Available at SSRN: <https://ssrn.com/abstract=2286334>

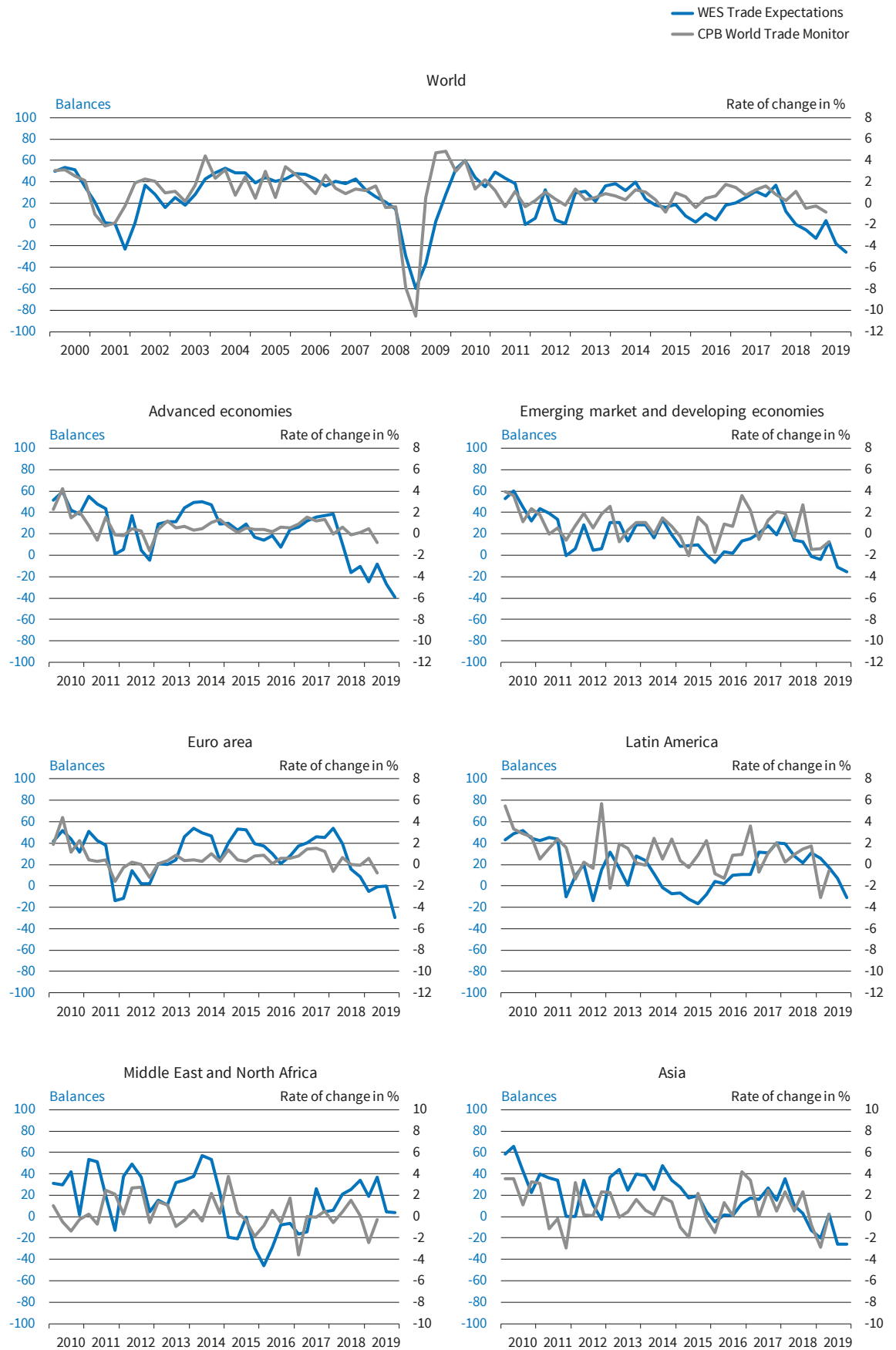
Hassan, M. and Schneider, F., "Size and Development of the Shadow Economies of 157 Countries Worldwide: Updated and New Measures from 1999 to 2013". *IZA Discussion Paper No. 10281*. Available at SSRN: <https://ssrn.com/abstract=2861026>

Williams, C. & Schneider, F. (2016). "Measuring the global shadow economy: the prevalence of informal work and labor", Edward Elgar, Massachusetts, USA.

Medina, L., and Schneider, F. (2017). "Shadow Economies Around the World: What Did We Learn Over the Last 20 Years?". *IMF Working paper No. 18/17* accessed at: <https://www.imf.org/en/Publications/WP/Issues/2018/01/25/Shadow-Economies-Around-the-World-What-Did-We-Learn-Over-the-Last-20-Years-45583>

Figure 8

Comparison of WES Experts Trade Expectations and the CPB World Trade Monitor in Selected Aggregates



Source: ifo World Economic Survey (WES) IV/2019; CPB Netherlands Bureau for Economic Policy Analysis (CPB).

© ifo Institute

Figure 9

Expected Trend for the Next 6 Months for Short- and Long-term Interest Rates



Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 10.1

Selected Aggregates

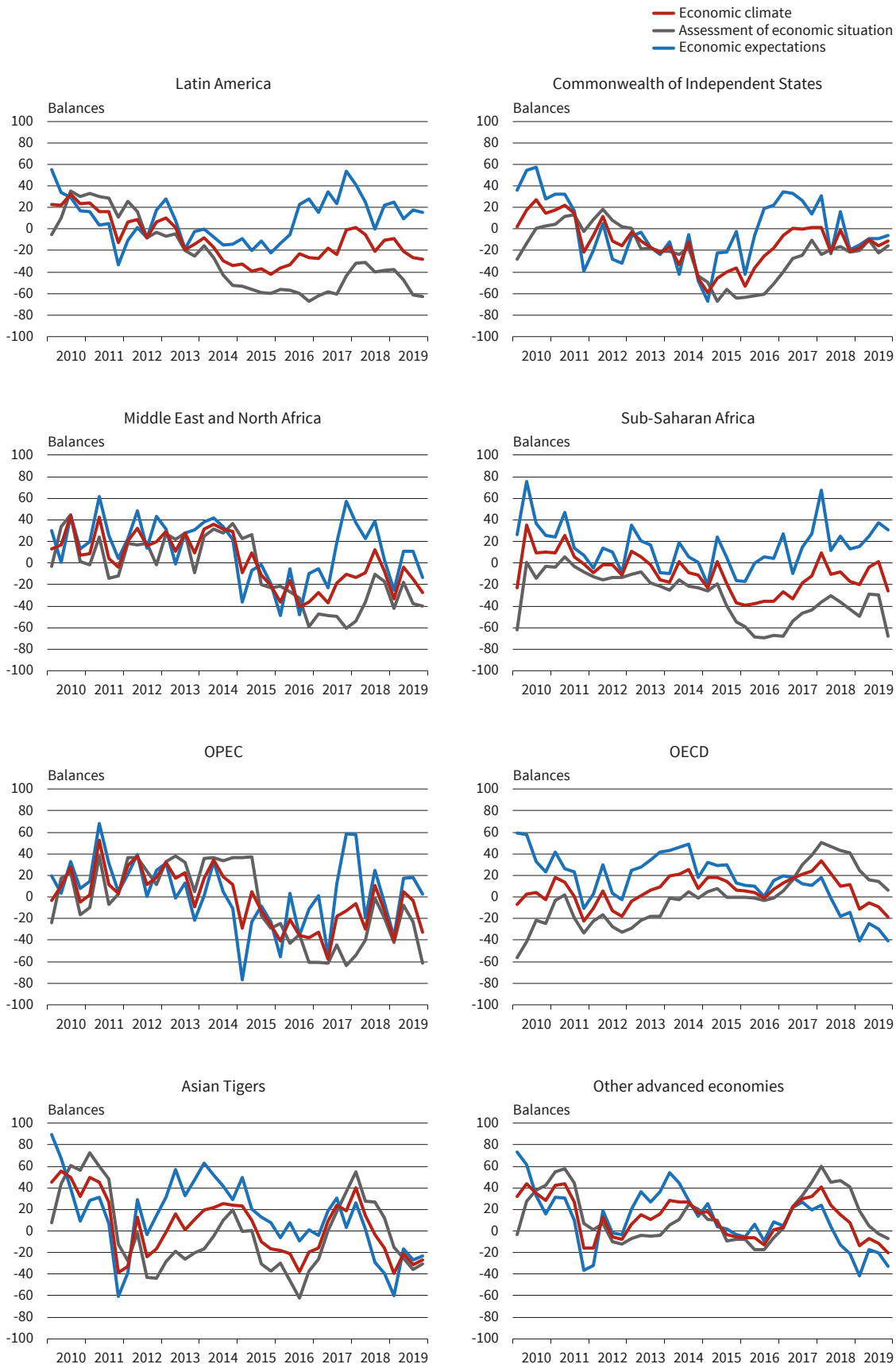


Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 10.2

Selected Aggregates

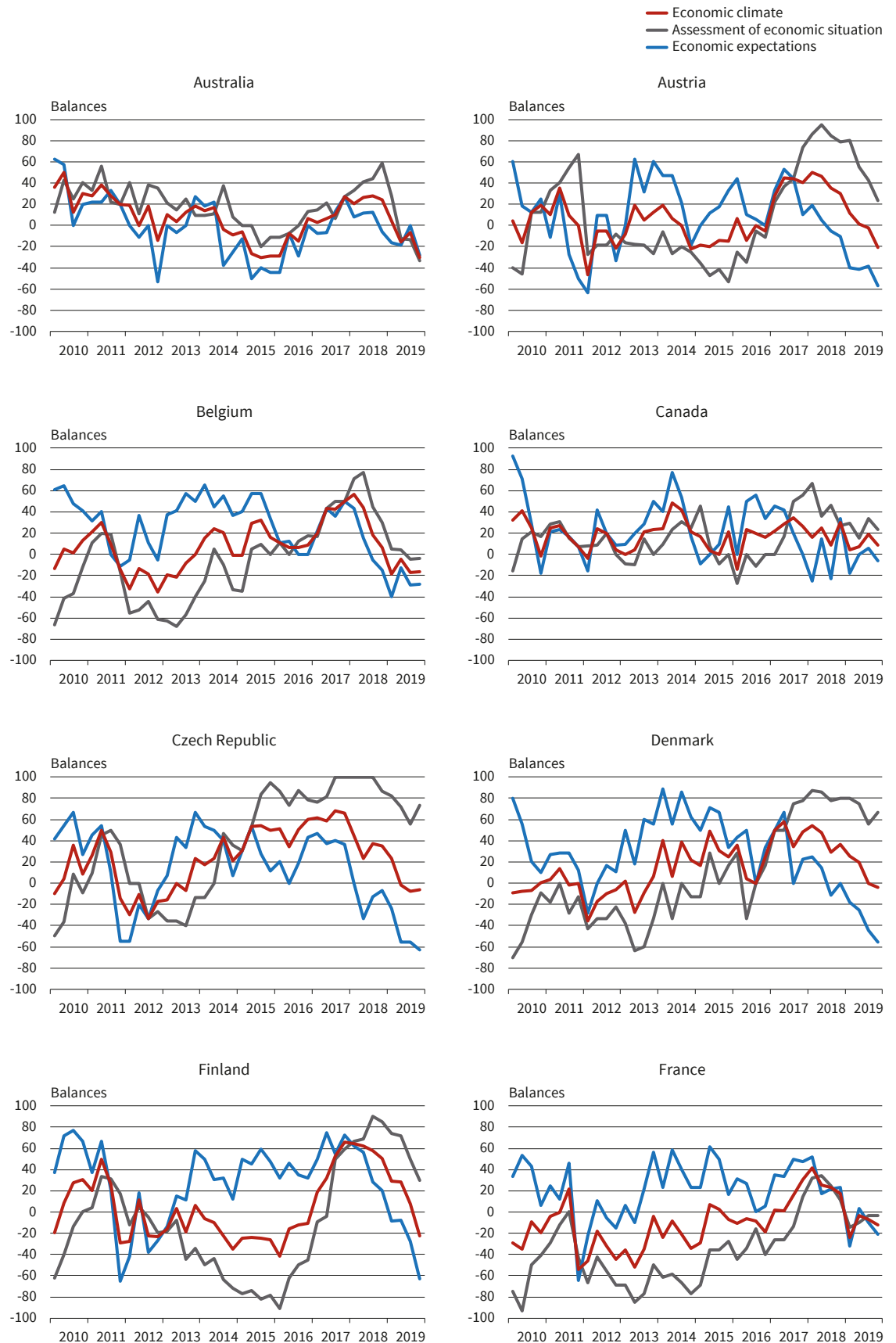


Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 11.1

Advanced Economies

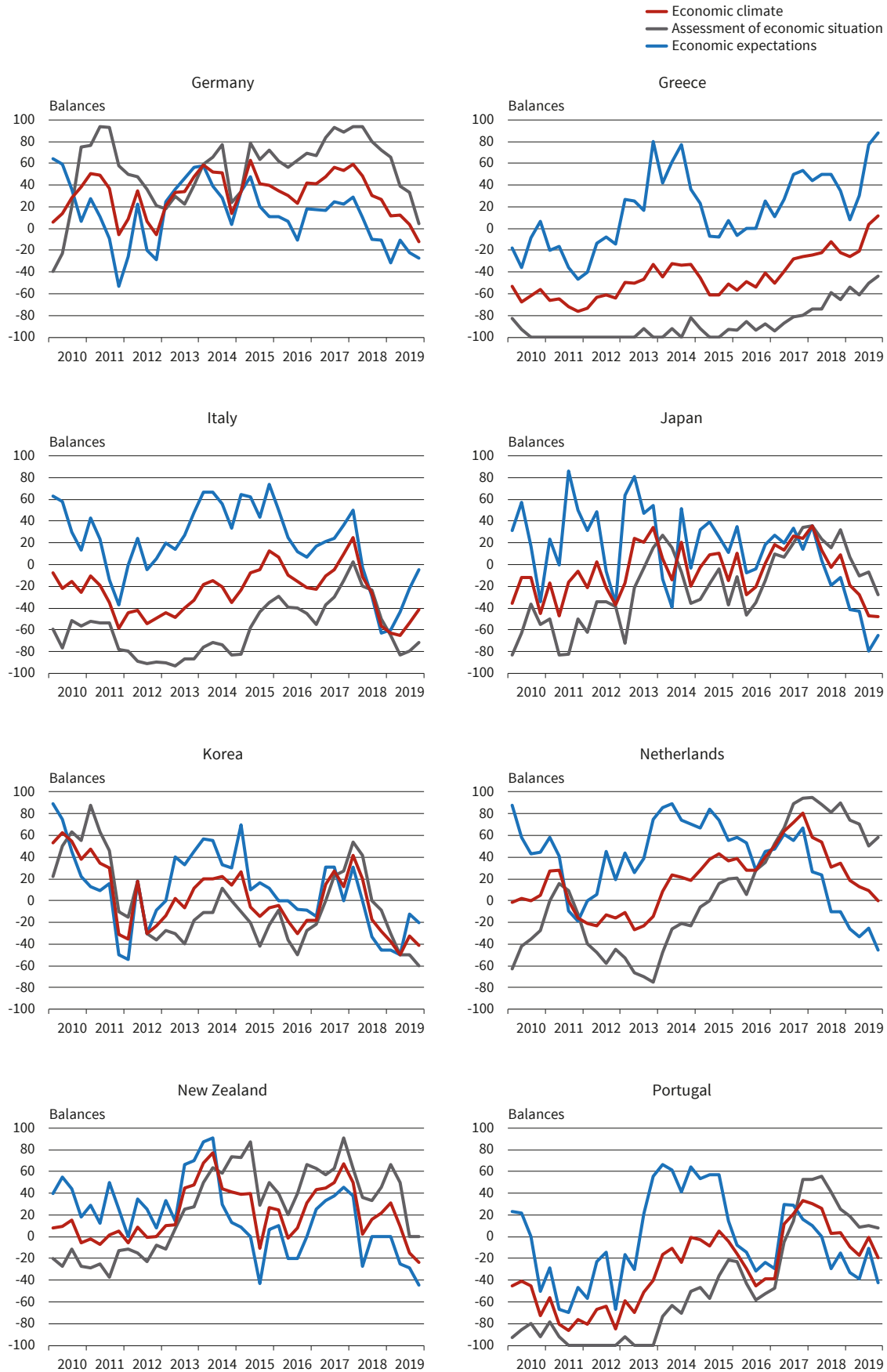


Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 11.2

Advanced Economies

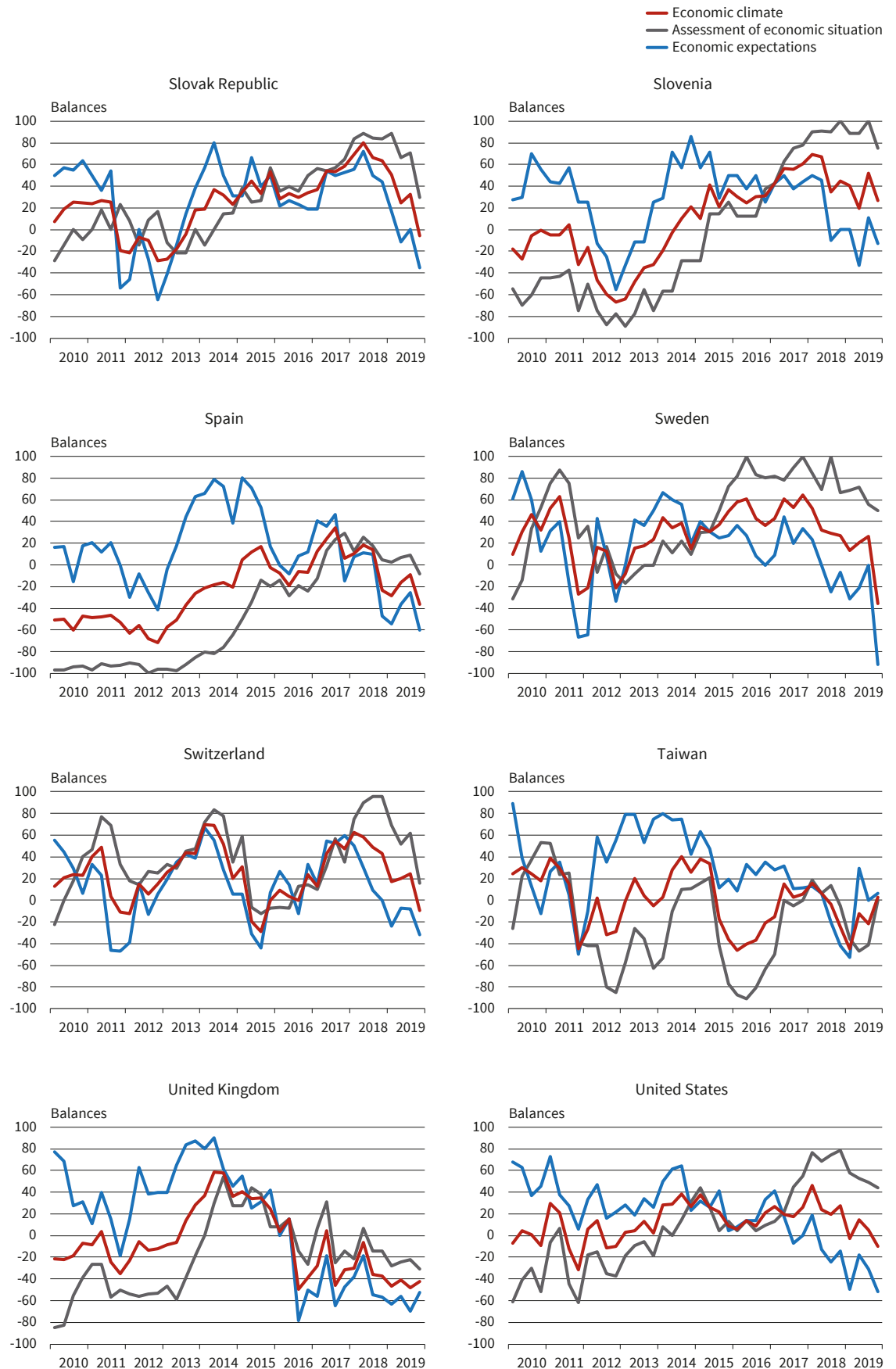


Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 11.3

Advanced Economies

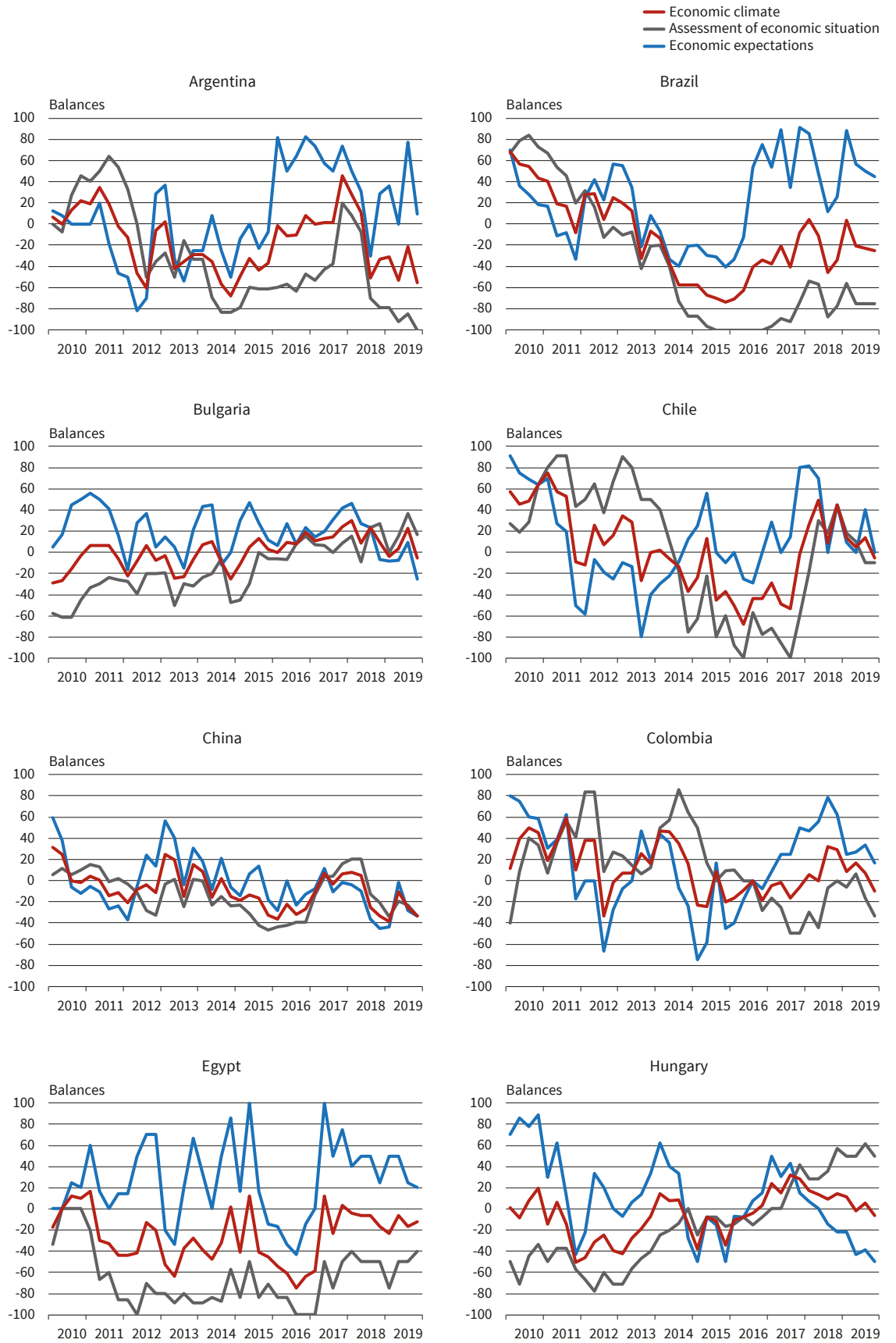


Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 12.1

Emerging Markets and Developing Economies

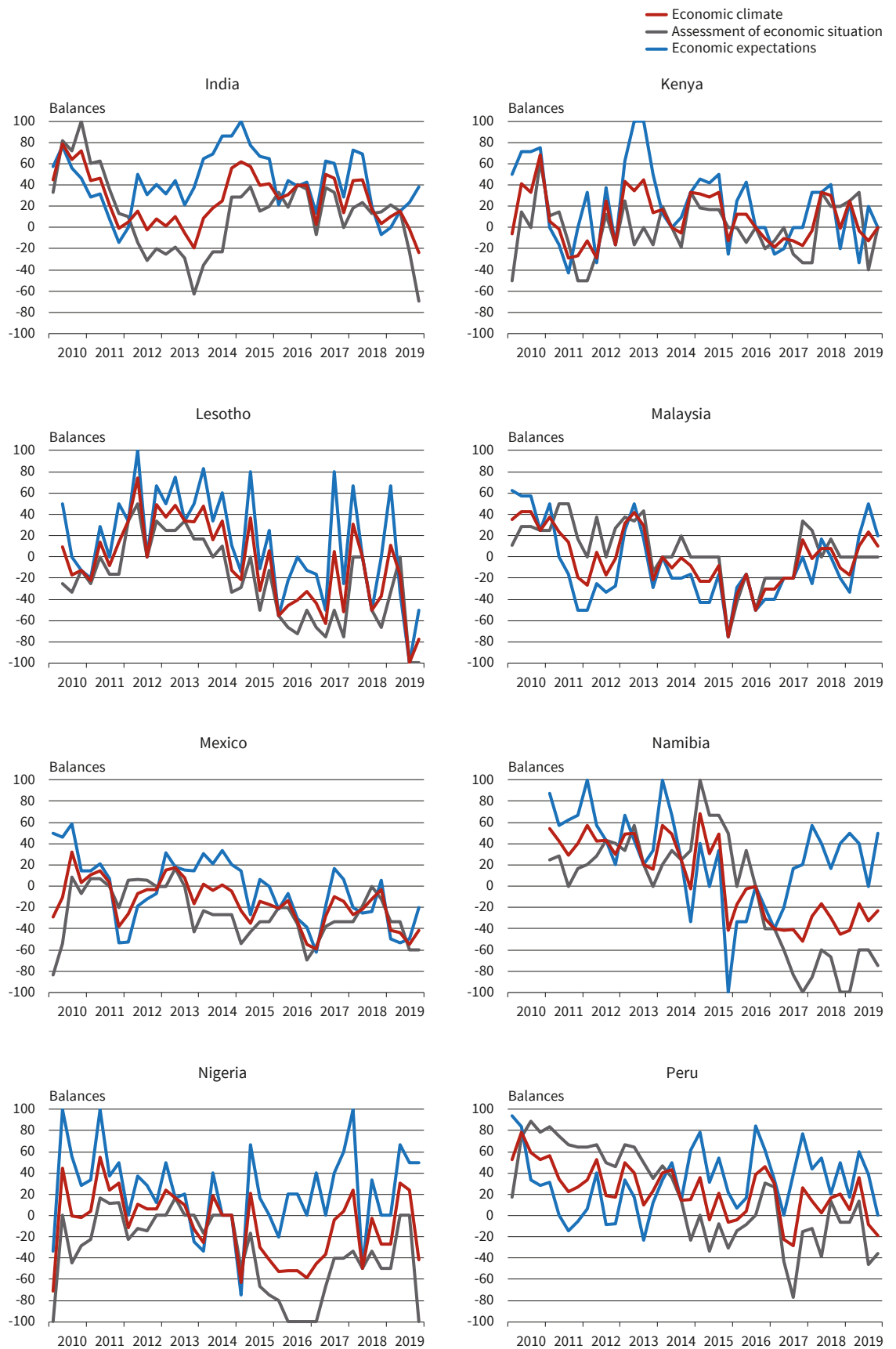


Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 12.2

Emerging Markets and Developing Economies



Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute

Figure 12.3

Emerging Markets and Developing Economies



Source: ifo World Economic Survey (WES) IV/2019.

© ifo Institute