

BCG

PEOPLE &
ORGANIZATION

Global Workforce Crisis 8° CONSUMER & RETAIL SUMMIT

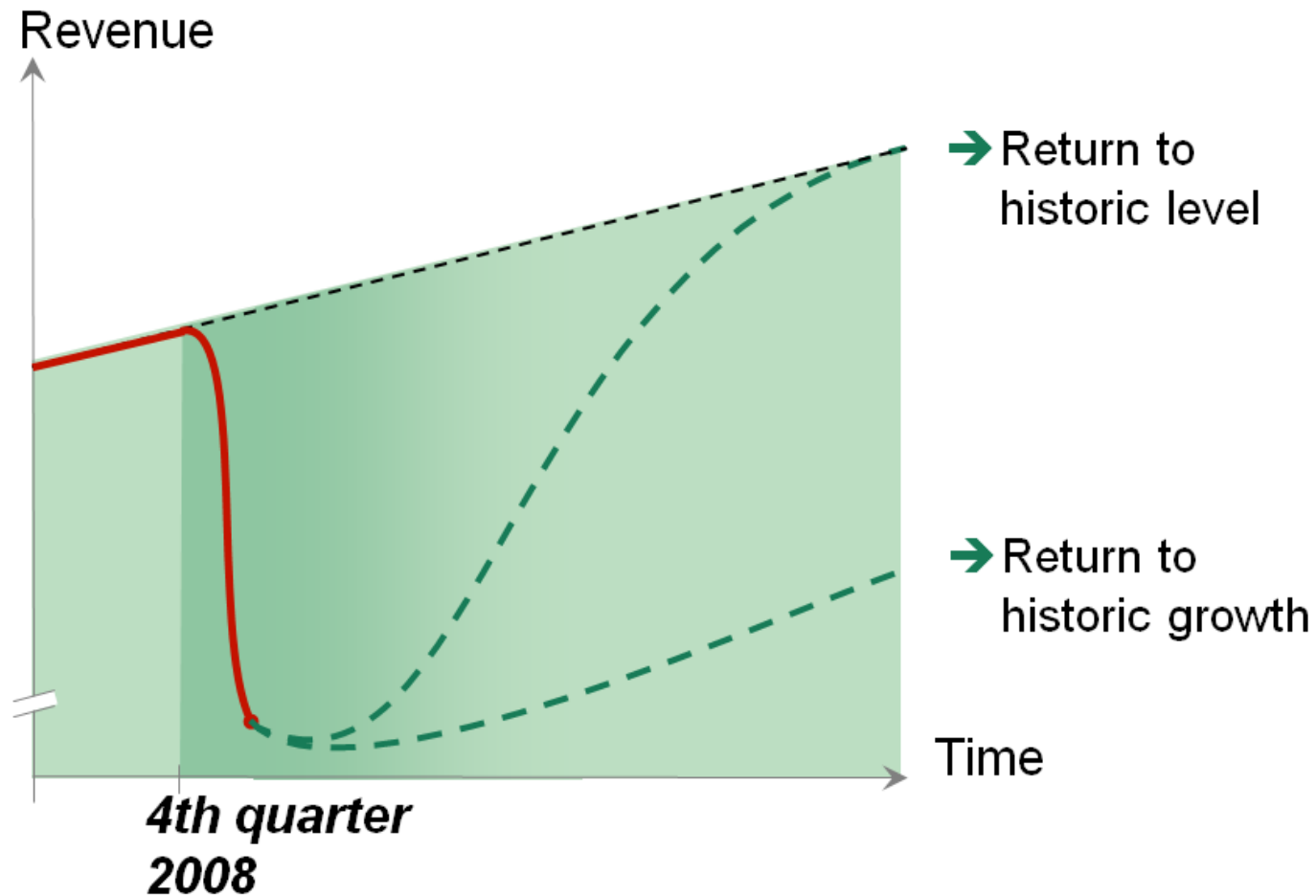
October 9th, 2014



THE BOSTON CONSULTING GROUP

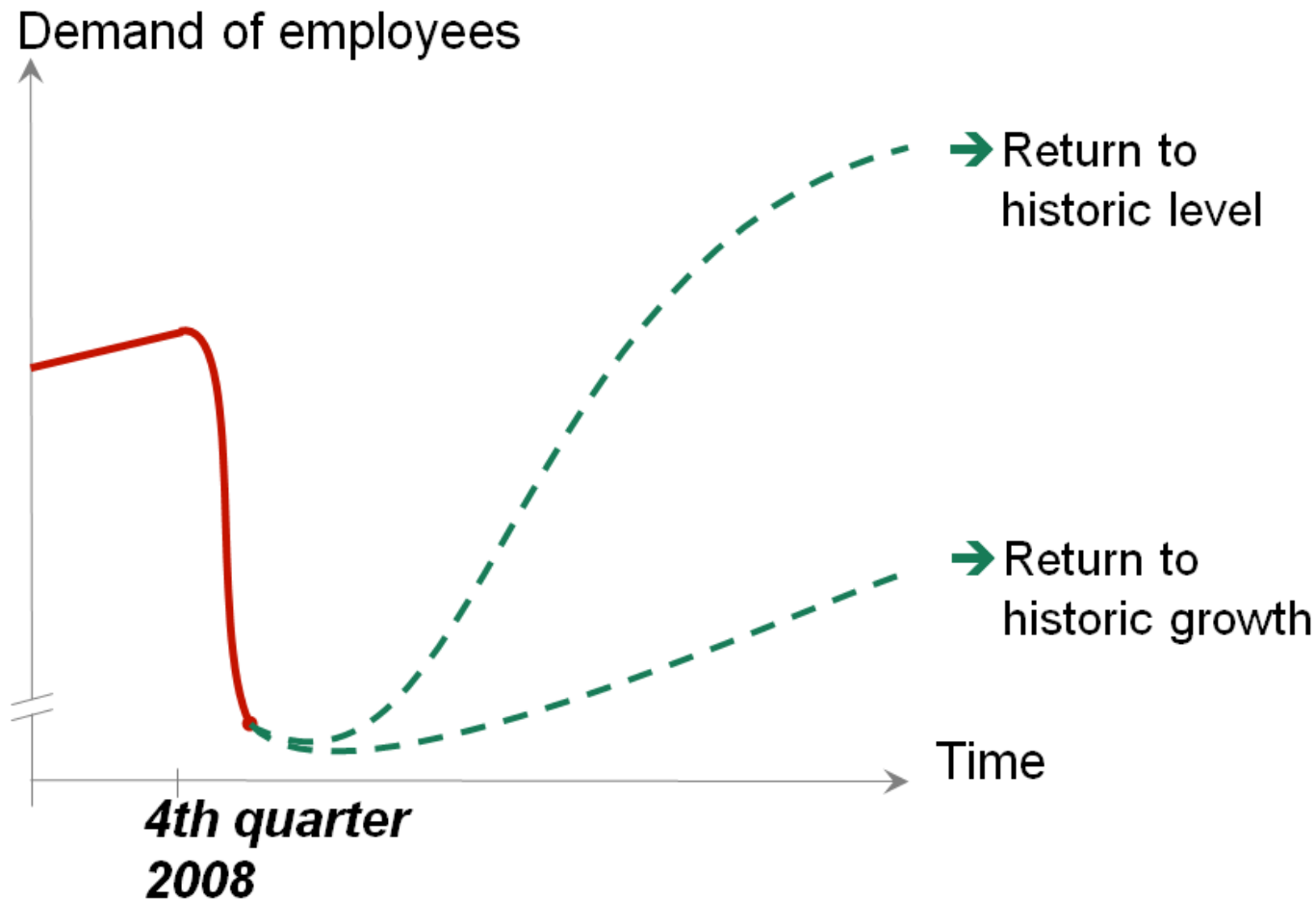
Companies are facing two short-term business scenarios ...

Revenue development



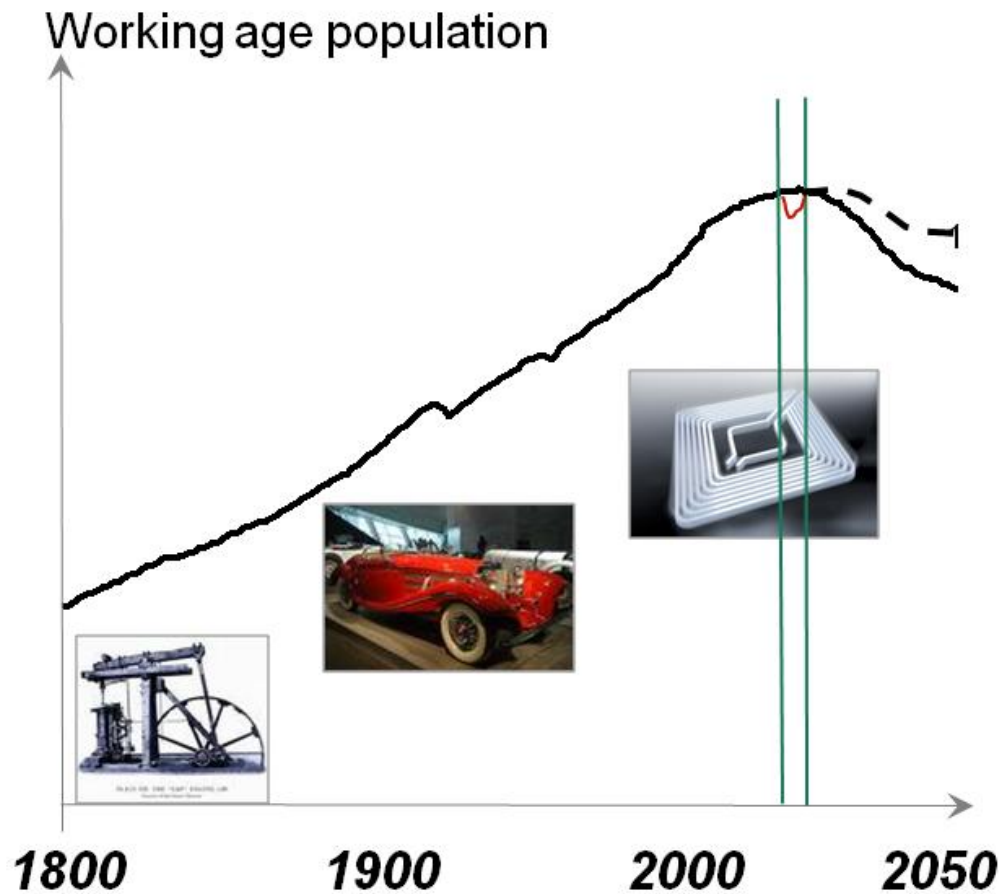
... and therefore two HR scenarios

Demand of employees



After the crisis human capital is *the* scarce resource

Demographic development



1. Assumed extension of working age to 70 years in 2050

Source: BCG

Global Workforce Planning: Our BCG Approach

1 Simulate workforce supply

How many people will be in the labor force by 2030?

- Forecast of total population¹
- Labor force participation rate per age cluster¹

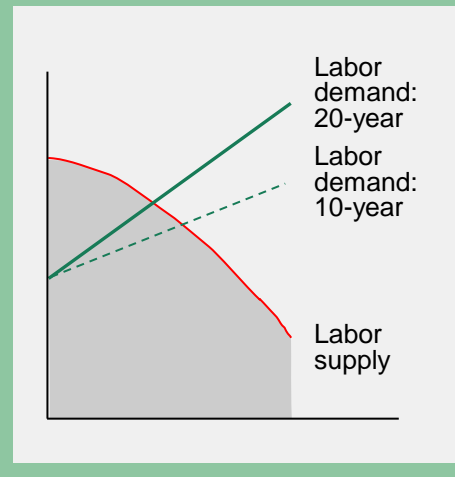
2 Simulate workforce demand

How many people will we need in the labor force 2030, assuming

- the same GDP growth in the future as in the past 10-, or 20-year period
- the same labor productivity improvement² in the future as in the past 10-, or 20-year period

Projections cover 3 different scenarios

3 Identify gaps/surpluses



4 Develop measures/interventions

1. Change the retirement-age
2. Change immigration policies
3. Bring more women into the workforce
4. Launch education & training initiatives

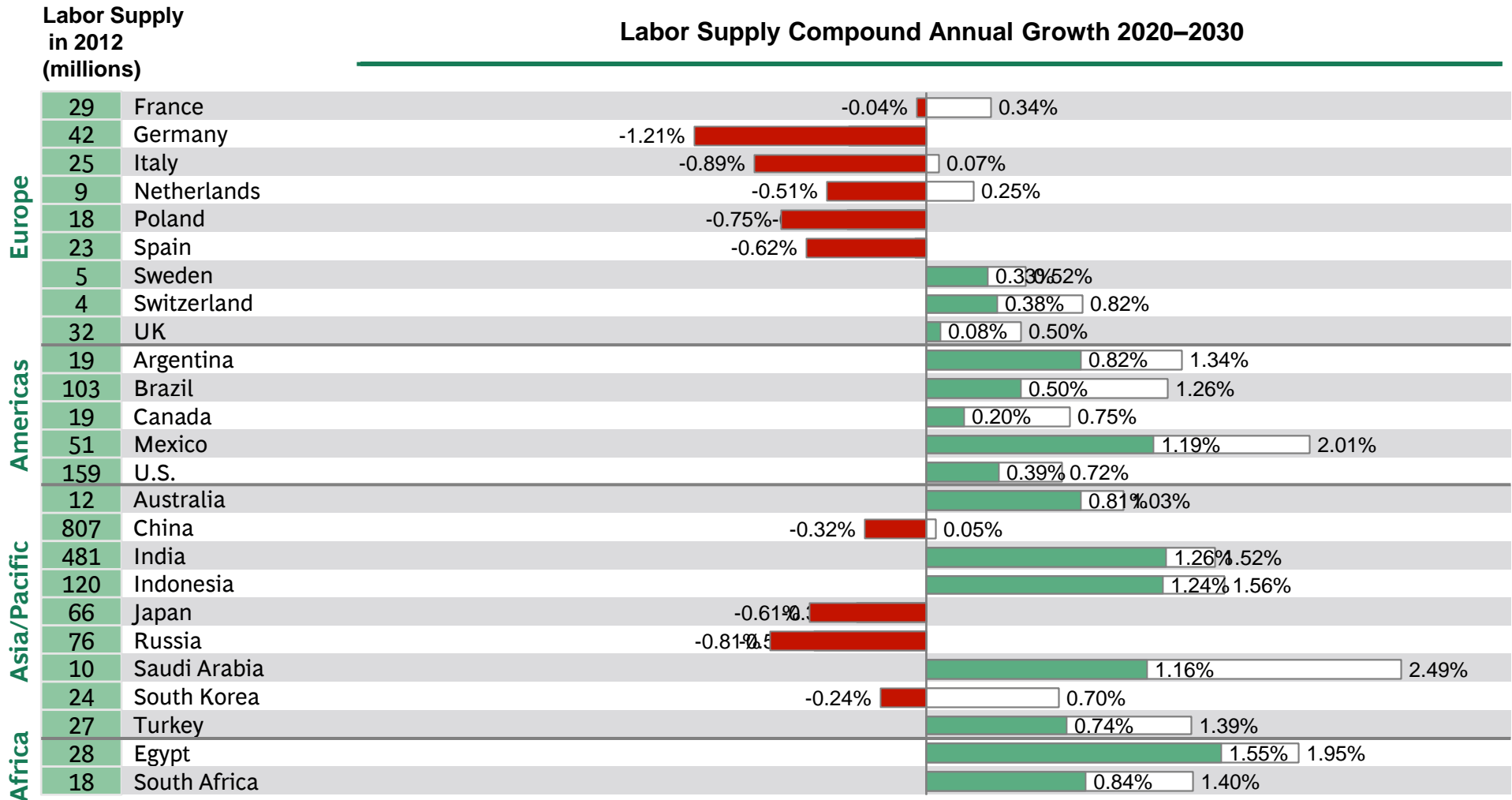
...

¹ Age of 15+ years, clusters analyzed by 5 year age groups

² Labor productivity = GDP/people employed, with "people employed" comprising total employment (full-time and part-time employees, employers, and self-employed people)

Source: The Boston Consulting Group analysis

Developed countries will experience demographic decline ...



Note: 2030 figures assume the same participation rate by sex and age groups as for 2020
 Labor supply = forecast of the total population (age 15+, 5-year age groups) × labor force participation rate (per 5-year age group)
 Sources: UN population database; ILO LaborSta database; The Boston Consulting Group analysis

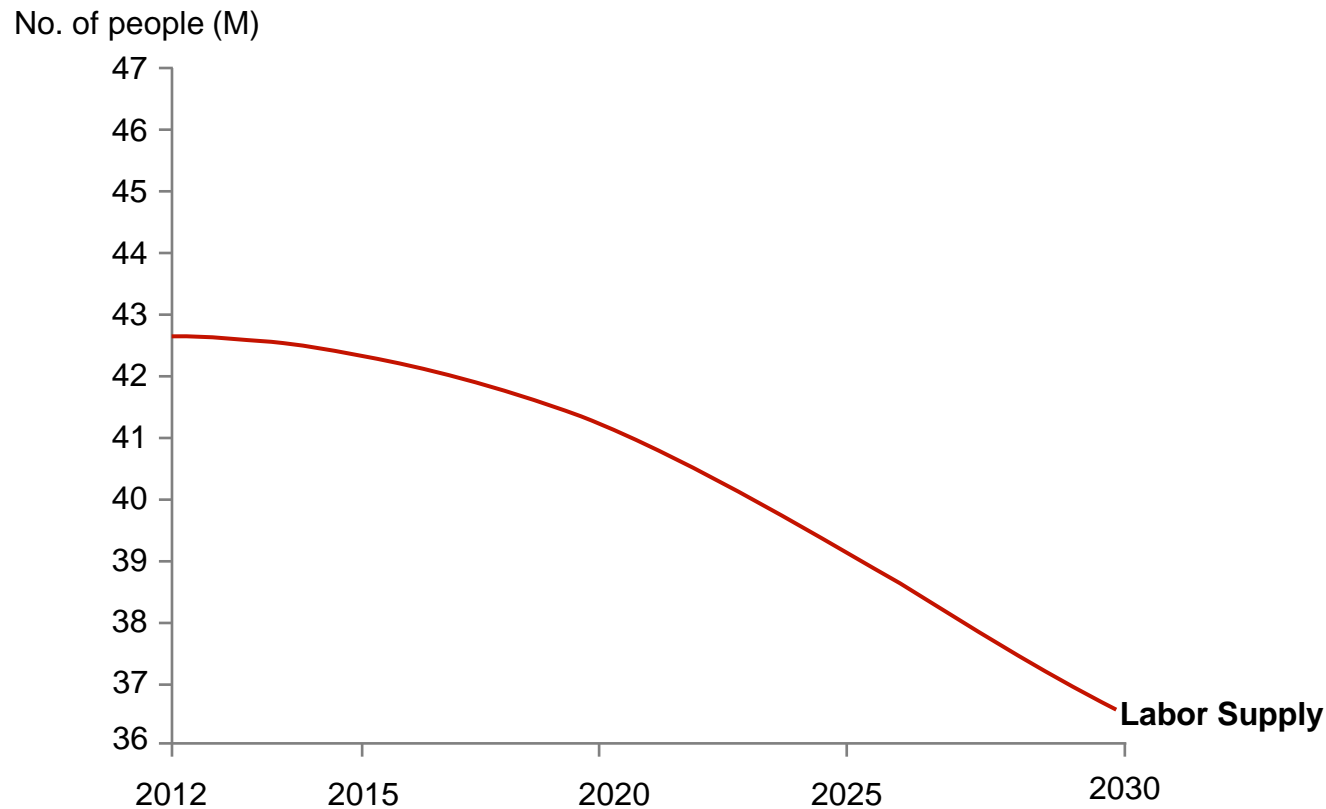
Labor supply CAGR 2012–20
 Labor supply CAGR 2020–30

... impacting labor supply: the example of Germany

Labor supply simulation based on




























Labor supply simulation Germany



Year 'N' – Year 'N+9" = Labor required in 2010–2030 based on 11 simulations of 10-year-groups of average GDP and productivity growth rates (from year group 1991–2000 to year group 2001–2010)
Source: UN Population database; ILO; EIU country data; BCG analysis and calculation

GDP and productivity growth rates by country

		Compound Annual Growth Real Gross Domestic Product		Compound Annual Growth Labor Productivity ¹	
		2003 – 2012	1993 – 2012	2003 – 2012	1993 – 2012
Europe	France 	1,0 %	1,5 %	0,7 %	0,9 %
	Germany 	1,2 %	1,3 %	0,6 %	0,9 %
	Italy 	-0,1 %	0,8 %	-0,4 %	0,5 %
	Netherlands 	1,1 %	2,0 %	0,6 %	0,8 %
	Poland ² 	4,3 %	4,4 %	2,8 %	3,7 %
	Spain 	1,3 %	2,2 %	0,9 %	0,7 %
	Sweden 	2,2 %	2,5 %	1,6 %	2,1 %
	Switzerland 	1,9 %	1,6 %	0,5 %	0,8 %
	UK 	1,3 %	2,4 %	0,8 %	1,6 %
Americas	Argentina ³ 	7,1 %	3,8 %	3,8 %	3,8 %
	Brazil 	3,6 %	3,2 %	0,8 %	0,5 %
	Canada 	1,9 %	2,7 %	0,5 %	1,1 %
	Mexico ⁴ 	2,5 %	2,6 %	0,6 %	0,0 %
	U.S. 	1,8 %	2,6 %	1,2 %	1,6 %
Asia/Pacific	Australia 	3,0 %	3,5 %	0,8 %	1,4 %
	China 	10,4 %	10,1 %	10,1 %	9,4 %
	India 	7,7 %	6,7 %	5,9 %	4,7 %
	Indonesia 	5,7 %	4,6 %	3,7 %	2,8 %
	Japan 	0,8 %	0,6 %	0,9 %	0,7 %
	Russia ⁵ 	4,6 %	1,8 %	3,8 %	3,1 %
	Saudi Arabia ⁶ 	6,7 %	4,0 %	1,9 %	1,5 %
	South Korea 	3,6 %	4,9 %	2,5 %	3,3 %
	Turkey 	5,0 %	4,0 %	3,5 %	2,8 %
Africa	Egypt 	4,7 %	4,3 %	1,8 %	1,8 %
	South Africa ⁷ 	3,5 %	3,1 %	2,1 %	2,8 %

1 GDP contribution per people employed. 2 Poland Compound Annual Growth Rate (CAGR) 1996 – 2012. 3 Argentina CAGR 2003 – 2012. 4 Mexico CAGR 2001 – 2012. 5 Russia CAGR 1995 – 2012. 6 Saudi Arabia CAGR 2000 – 2012. 7 South Africa CAGR 2001 – 2012.

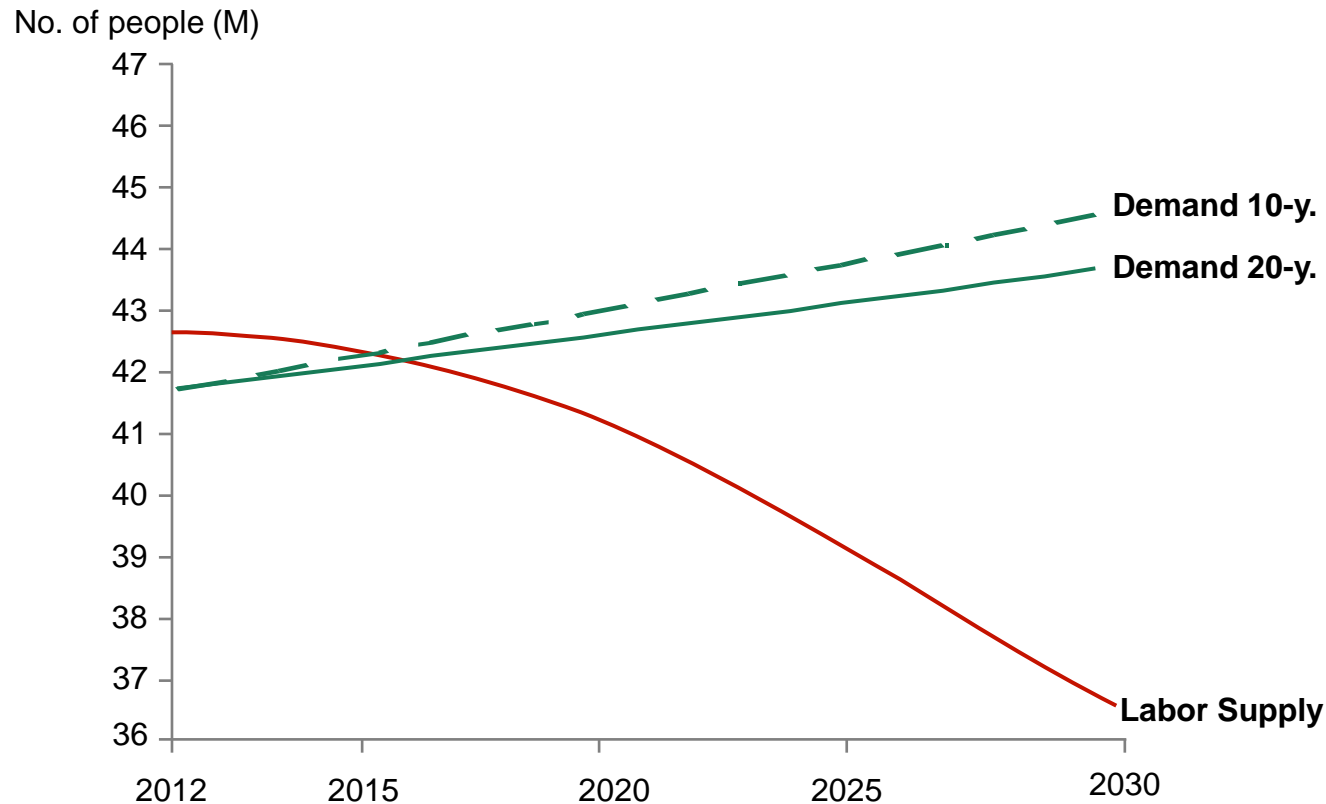
Sources: EIU country data, actual and estimates; The Boston Consulting Group analysis

Simulating labor demand against labor supply

Labor demand simulation based on average GDP & productivity growth rates in past years



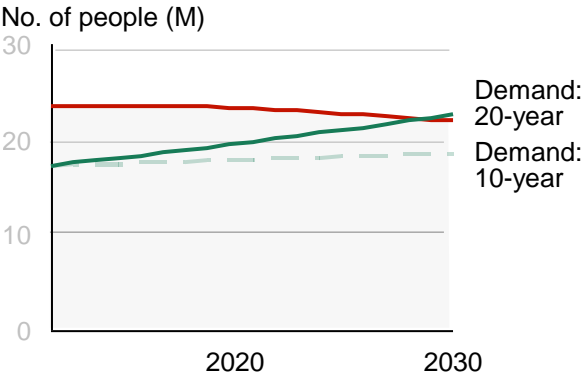
Labor supply vs. Labor demand simulation Germany



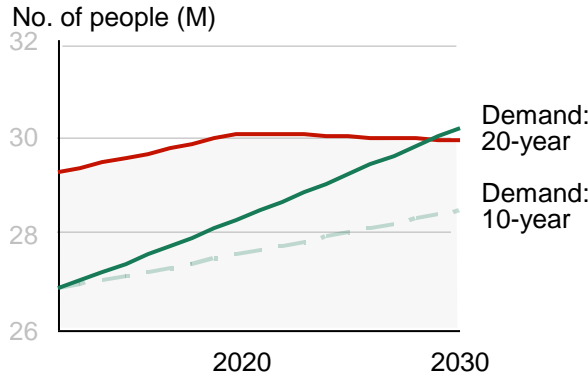
Year 'N' – Year 'N+9' = Labor required in 2010–2030 based on 11 simulations of 10-year-groups of average GDP and productivity growth rates (from year group 1991–2000 to year group 2001–2010)
Source: UN Population database; ILO; EIU country data; BCG analysis and calculation

The Labor Gap simulation for main European countries

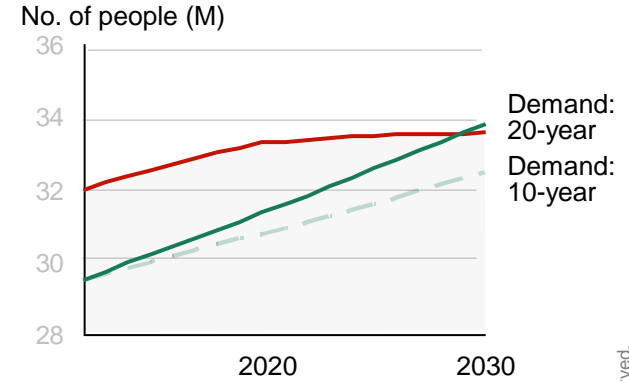
Labor supply vs. demand
Spain



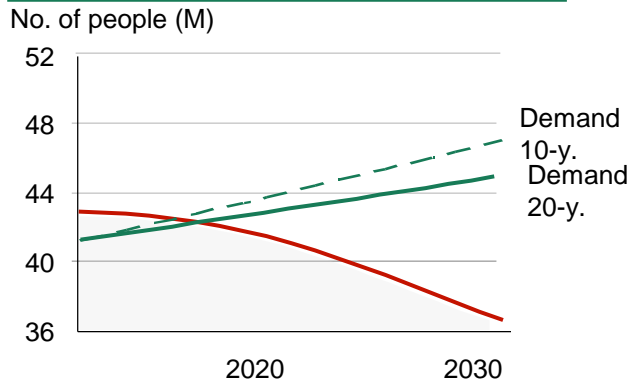
Labor supply vs. demand
France



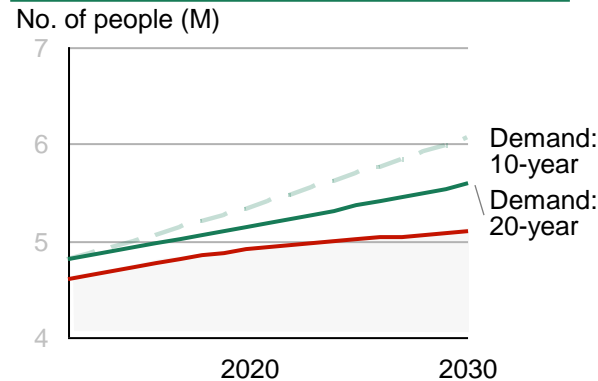
Labor supply vs. demand
United Kingdom



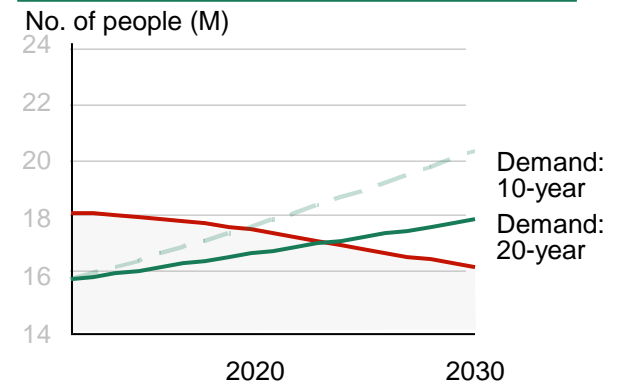
Labor supply vs. demand
Germany



Labor supply vs. demand
Switzerland



Labor supply vs. demand
Poland



Labor supply = forecast of the total population (age 15+, 5 year age groups) × labor force participation rate (per 5 year age group)
 Labor demand is defined as number of people required to be employed to produce a desired amount of economic output (GDP) based on a given output per person (labor productivity).

Source: UN population database; ILO LaborSta database; EIU country data; The Boston Consulting Group analysis

Differing labor needs across countries and time

The proliferation of labor shortages increases by 2030 for many countries

		Labor shortage/surplus in 2020		Labor shortage/surplus in 2030	
		Scenario 1 (10-year growth)	Scenario 2 (20-year growth)	Scenario 1 (10-year growth)	Scenario 2 (20-year growth)
Europe	France	8%	6%	5%	-1%
	Germany	-6%	-4%	-27%	-23%
	Italy				
	Netherlands	14%	10%	5%	-7%
	Poland ¹	-1%	5%	-24%	-10%
	Spain	24%	17%	16%	-3%
	Sweden	7%	9%	4%	8%
	Switzerland	-9%	-5%	-19%	-10%
	UK	8%	6%	3%	-1%
Americas	Argentina ²	3%	24%	-23%	30%
	Brazil	-7%	-7%	-34%	-33%
	Canada	5%	3%	-6%	-11%
	Mexico ³	10%	6%	4%	-8%
	U.S.	13%	10%	11%	4%
	Australia	-3%	-2%	-18%	-16%
Asia/Pacific	China	9%	7%	3%	-3%
	India	8%	6%	4%	1%
	Indonesia	3%	5%	-3%	0%
	Japan	3%	3%	-2%	-2%
	Russia ⁴	-5%	11%	-24%	15%
	Saudi Arabia ⁵	16%	30%	-19%	20%
	South Korea	-2%	-6%	-16%	-26%
	Turkey	7%	8%	0%	4%
Africa	Egypt	7%	9%	-5%	0%
	South Africa ⁶	30%	36%	26%	39%

1 Poland Compound Annual Growth Rate (CAGR) 1996 – 2012. 2 Argentina CAGR 2003 – 2012. 3 Mexico CAGR 2001 – 2012. 4 Russia CAGR 1995 – 2012. 5 Saudi Arabia CAGR 2000 – 2012. 6 South Africa CAGR 2001 – 2012.

Note: Gap = labor supply—labor demand for 2020 and 2030

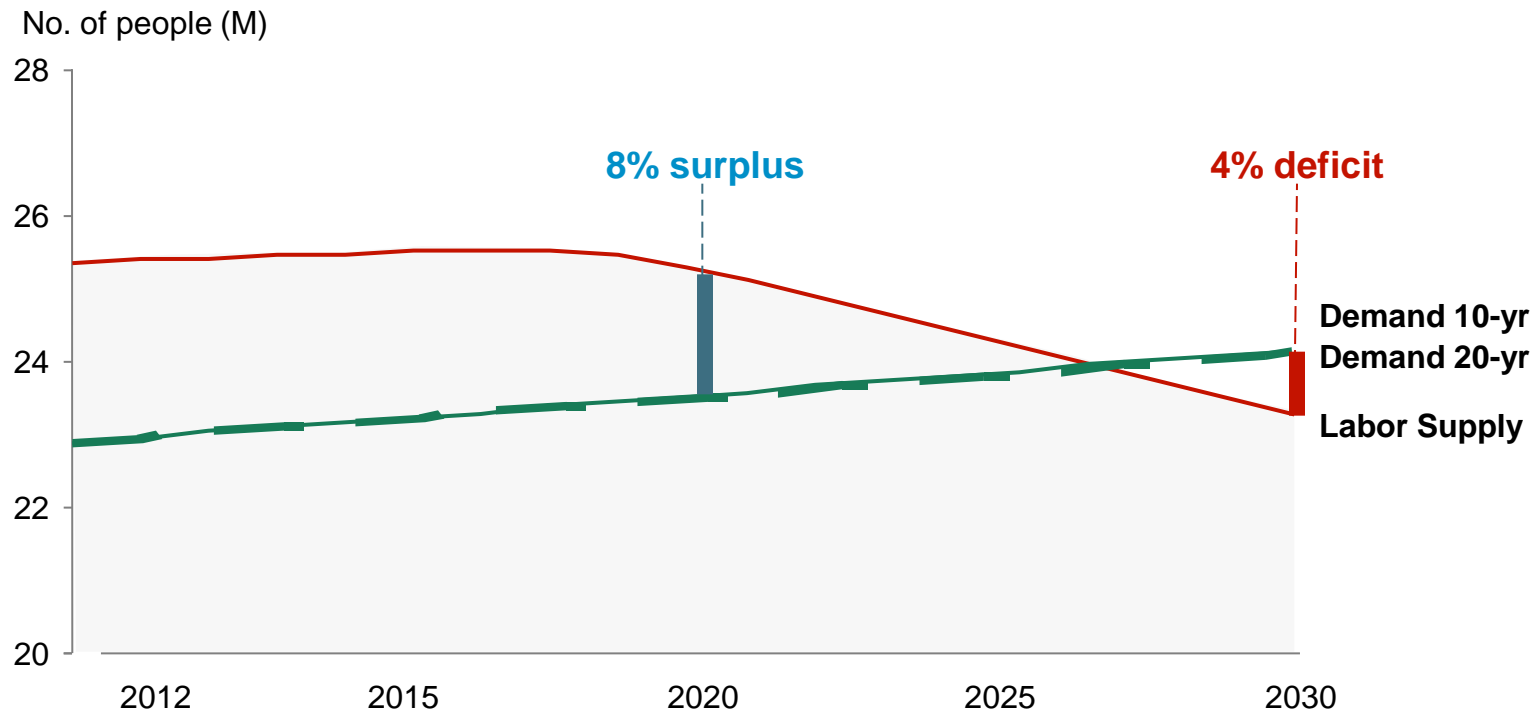
Source: UN population database; ILO LaborSta database; EIU country data; The Boston Consulting Group analysis

Labor gap simulation for Italy

Inertial trend: Large unemployment until 2020



Labor supply vs. demand Italy



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Labor demand is defined as number of people required to be employed to produce a desired amount of economic output (GDP) based on a given output per person (labor productivity)
Sources: UN population database; ILO LaborSta database; EIU country data; The Boston Consulting Group analysis