Question #1 of 40

Relative to the growth rate in potential GDP, the rate of appreciation in the aggregate stock market:

A) is the same in the short and long run.

B) can be lower in the short-term but is equal in the long run.

C) can be higher in the long run but is the same in the short-term.

Explanation

In the short-term, appreciation in the aggregate stock market can be lower (or higher) than the growth rate in potential GDP. However, in the long-run, aggregate stock market appreciation should be equal to growth rate in potential GDP.

(Study Session 4, Module 12.1, LOS 12.b)

Related Material

SchweserNotes - Book 1

Question #2 of 40

Which of the following situations is *least likely* to constrain growth in an economy?

A) Strong domestic currency appreciation due to demand for domestically owned natural resources

B) A lack of access to natural resources

C) Limited ownership of natural resources

Explanation

A lack of access to natural resources could well restrain growth. Currency appreciation will lead to high export prices and uncompetitive domestic industries in the global market. A lack of ownership of natural resources need not hinder growth as long as the economy has access via trade.

(Study Session 4, Module 12.2, LOS 12.f)

Related Material

SchweserNotes - Book 1

Question #3 of 40

Which of the following concepts is uniquely associated with the endogenous growth theory of economic growth?

A) Real gross domestic product (GDP) growth based on investment in new capital and technological change.

B) Increased spending on health care and population growth.

C) No diminishing returns to knowledge capital.

Explanation

Knowledge capital is a special type of public good because it is not subject to the law of diminishing returns. This is a key element of endogenous growth growth theory. The implication is that, unlike the classical or neoclassical growth theories, economic growth is not limited.

(Study Session 4, Module 12.3, LOS 12.i)

Related Material

SchweserNotes - Book 1

Question #4 of 40

Shefali is an emerging market economy where labor cost accounts for 35% of total factor cost. The long-term trend of labor growth is 2%. Capital investment has been growing at 1.5% but is expected to grow at 3% in the future. Shefalian economy is expected to experience annual growth of 2.5% in total factor productivity. The potential GDP growth rate for Shefali is *closest to*:

A) 4.85%

B) 7.5%

C) 5.15%

Explanation

Using the growth accounting equation: growth rate in potential GDP = long-term growth rate of technology + α(long-term growth rate of capital) + (1 − alpha) (long-term growth rate of labor)

= 2.5% + (0.65)(3%) + (0.35)(2%) = 5.15%

(Study Session 4, Module 12.2, LOS 12.e)

Related Material

SchweserNotes - Book 1

Question #5 of 40

A country with relatively poor endowment of natural resources is *most likely* to:

A) suffer from 'Dutch disease'.

B) enjoy the technological progress of a country with a vigorous manufacturing sector.

C) devote a disproportionate amount of its economic energy to pursuing the limited natural resources that the country has.

Explanation

Countries with poor endowments of natural resources may enjoy relatively high levels of GDP growth rate as long as they have access to natural resources. Dutch disease refers to situation where a country with large endowments of natural resources finds its currency appreciating driven by foreign demand for those resources. This increase in currency value may render other domestic industries uncompetitive globally, and the country may not participate in the TFP progress seen in countries with strong manufacturing sectors. Countries with abundant natural resources may devote disproportionate amount of its economic energy in pursuing those resource industries at the expense of other industries.

(Study Session 4, Module 12.2, LOS 12.f)

Related Material

SchweserNotes - Book 1

Question #6 of 40

The endogenous growth theory contends that economic growth is a function of which of the following two economic variables?

A) The creation of knowledge capital and real interest rates.

B) The subsistence real wage and real interest rates.

C) Real interest rates and technological change.

Explanation

The endogenous growth theory holds that productivity growth is a function of society's ability to discover new products and methods (i.e., the creation of knowledge capital), and real interest rates.

(Study Session 4, Module 12.3, LOS 12.i)

Related Material

SchweserNotes - Book 1

Question #7 of 40

Which of the following concepts is uniquely associated with the classical theory of economic growth?

A) Subsistence real wage.

B) Real GDP growth.

C) Target rate of return.

Explanation

Classical growth theory contends that there is a subsistence real wage, defined as the minimum real wage necessary to support life. Whenever real wages are greater than the subsistence real wage, the population will increase, leading to diminishing returns to labor, and eventually, decreased labor productivity. The key to classical growth theory is the population explosion that occurs whenever real GDP per labor hour increases above the subsistence level, which will eventually eliminate any gains from increased labor productivity.

(Study Session 4, Module 12.3, LOS 12.i)

Related Material

SchweserNotes - Book 1

Question #8 of 40

Ruritania and Utopia are two emerging market economies for which Jon Gordon, CFA, calculated a potential GDP growth rate of 4.3% (for both).

In calculating the identical growth rates, Gordon used the Cobb-Douglas production function and the following data:

	Labor Growth Rate	Capital Growth Rate	Growth in TFP*
Ruritania	2.2%	3.1%	1.8%
Utopia	1.7%	3.1%	1.8%

*Total Factor Productivity

Which of the following statements is *most accurate* regarding Gordon's assumptions in calculating growth rates?

A) Gordon has assumed that the elasticity of output with respect to capital is higher in Ruritania than Utopia

B) Gordon has assumed that the elasticity of output with respect to labor is lower in Utopia than Ruritania

C) Gordon has assumed that the elasticity of output with respect to TFP is higher in Utopia than Ruritania

Explanation

Using the Cobb-Douglas production function, the growth rate in potential GDP can be calculated as:

Growth rate in Potential GDP = growth rate in TFP + α(growth rate capital) + (1-α)(growth rate labor)

Where α = elasticity of output with respect to capital

And (1-α) = elasticity of output with respect to labor

The only data given that is different for the two countries is the assumed labor growth rate. In order to calculate the same GDP growth rate, Gordon must assume a higher α and hence a lower (1-α).

For Ruritania: 4.3% = 1.8% + 3.1%(α) + 2.2%(1-α)

Solving algebraically for α for Ruritania: α = 0.33 and (1-α) = 0.67

For Utopia: 4.3% = 1.8% + 3.1%(α) + 1.7%(1-α)

Solving algebraically for α for Utopia: α = 0.57 and (1-α) = 0.43

Thus Gordon has assumed that the elasticity of output with respect to labor (1-α) is lower in Utopia (0.43) than Ruritania (0.67)

(Study Session 4, Module 12.2, LOS 12.e)

Related Material

SchweserNotes - Book 1

Question #9 of 40

Yasmani Sandoval has gathered the following information on the economy of Sangarnio and that of Gurtania, two developed economies with strong trade links with each other.

Country	TFP Growth Rate	Labor Force Growth Rate	Labor cost as a % of total factor cost
Sangarnio	1.8%	1.1%	0.55
Gurtania	1.9%	1.0%	0.60

Which of the following conclusions is Sandoval *most likely* to draw?

A) According to classical growth theory, Sangarnio's sustainable growth rate is higher than that for Gurtania

B) Gurtania has a sustainable growth rate of over 4% according to neoclassical growth theory

C) Sangarnio has the lowest sustainable growth rate according to neoclassical growth theory

Explanation

Classical growth theory contends that growth is not sustainable, hence both economies should have a sustainable growth rate of zero.

Neoclassical growth theory calculates the sustainable growth rate as $[\theta/(1-\alpha)]$+ Growth Labor

Sangarnio: 1.8/0.55 + 1.1 = 4.38%

Gurtania: 1.9/0.60 + 1.0 = 4.17%

Sangarnio has a higher sustainable growth rate than Gurtania, but Gurtania does have a growth rate over 4%.

(Study Session 4, Module 12.3, LOS 12.i)

Related Material

SchweserNotes - Book 1

Wisterbon, Pratia and Surico are neighboring nations. The three countries share borders and frequently trade with each other.

Pratia

- A developing nation with an abundant oil reserves
- Primary economic activity is oil industry

Wisterbon

- A developing nation focusing on labor intensive industries because it lacks many natural resources

Surico

- A developed nation
- Largest trading partner for both the other two countries

The following economic and demographic statistics are available for the three countries.

	Wisterbon	Pratia	Surico
GDP (in $ billions) 10 years	$100.0	$100.00	$3,000.00

ago			
GDP (in $ billions) Current	$156.0	$164.00	$4,209.00
Long-term growth rate in technology (est.)	1.5%	1.2%	2.1%
Long-term growth rate of capital	4.9%	4.40%	3.4%
Sovereign credit rating	A	A+	AAA
Savings rate (average is 10.0%)	12.5%	10.0%	5.0%
Population (in millions)	10.2	10.0	50.4
Labor Growth Rate	2.8%	2.5%	0.6%
Cost of capital relative to total factor cost	30.0%	35.0%	27.5%
Capital Growth Rate	4.9%	4.4%	3.4%
TFP Growth Rate	1.5%	1.2%	2.1%

The three countries have sent their top finance ministers and economists to the annual Trade and Economic Growth Forum (TEGF) to discuss potential trade and growth opportunities. Comments pertaining to concerns regarding future growth potential included:

Economist #1:	We are concerned about the GDP per capita and population growth. The current GDP per capita appears to be beyond the subsistence level.
Economist #2:	We are concerned that the output per capital ratio has been constant. It is likely that the equilibrium growth rate has been reached and the economy cannot grow any faster.
Economist #3:	We are concerned that we are not investing enough in infrastructure and education to increase the growth rate.

Some common initiatives for economic growth were listed from the TEGF:

1. Fund a technology research center
2. Lower trade barriers
3. Provide financial incentives for innovation
4. Coordinate energy policies
5. Invest in education

Each country decided to adopt four of the five initiatives. Pratia did not like lowering trade barriers. Surico did not like coordinating energy policies. Wisterbon did not like providing financial incentives for innovation.

Question #10 of 40

Which country is *most likely* to rely on improving technology rather than capital deepening for increase in potential GDP growth?

A) Surico. ✓

B) Pratia. ✗

C) Wisterbon. ✗

Explanation

Surico is a developed country and has the lowest share of output allocated to capital of 27.5%. Surico will gain less from capital deepening. The growth rate in potential GDP for Surico is 2.1% + (0.275) × (3.4%) + (0.725) × (0.6%) = 3.4%. About 61% of potential GDP growth is based on the total factor of production (TFP), the highest of the three.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #11 of 40

The natural resources advantage of Pratia compared to Wisterbon and the differences in growth rates may be explained by:

A) Wisterbon's inability to access natural resources. ✗

B) Pratia's economic growth is hampered by the focus on extracting oil. ✓

C) Pratia's economic growth surpasses Wisterbon because of natural resources advantage. ✗

Explanation

Pratia's potential GDP growth rate = 1.2% + (0.35)(4.4) + (0.65)(2.5) = 4.37%

Wisterbon's potential GDP growth rate = 1.5% + (0.3)(4.9) + (0.7)(2.8) = 4.93%

Pratia's potential GDP growth rate is less than that of Wisterbon's. One theory that supports a country that has natural resources but could grow at a lesser rate than a country without natural resources is that the ownership of natural resources may be focusing on its recovery over developing other industries.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #12 of 40

Which economist is mostly applying neoclassical theory when stating her concerns?

A) Economist #2.

B) Economist #3.

C) Economist #1.

Explanation

The neoclassical growth theory is based on when the output to capital ratio is constant, both the labor to capital ratio and output per capita grow at the same equilibrium rate. Economist #1's concern is supported by the classical growth theory and Economist #3's concern is supported by the endogenous growth theory.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #13 of 40

The country *most likely* to achieve convergence of higher living standards is:

A) Wisterbon.

B) Pratia.

C) Surico.

Explanation

Removing trade barriers can speed up growth rate in living standards for a developing nation. Both Wisterbon and Surico follow outward-oriented policies, only Wisterbon is a developing nation.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #14 of 40

The three countries' willingness to provide financial incentives for innovation is because:

A) increase in innovation is the only way to grow under the endogenous growth theory.

B) consideration of private benefits alone would lead to suboptimal investment in R&D.

C) Increase in innovation would lead to convergence of standard of living.

Explanation

When private investments in R&D are sub-optimal, financial incentives may restore the level of investment to optimal levels. Under the endogenous growth theory, the growth rate in standard of living can be achieved via technological growth as well as capital deepening. Convergence of standard of living would only be an incentive for developing countries.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #15 of 40

For Surico, the education investment that may increase the growth rate of potential GDP is the one that would increase:

A) research and development to increase TFP.

B) application of technology to increase TFP and productivity of labor.

C) non-ICT capital to increase capital deepening.

Explanation

Surico is a developed country. It is not likely to benefit much from capital deepening and application of technology. Innovations and research and development can increase the total factor productivity which is more likely to increase the impact of growth in potential GDP.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #16 of 40

Mary Gorton makes the following two statements regarding investment and economic growth.

Statement 1	'Investment in human capital increases hours worked and will likely boost economic growth.'
Statement 2	'Investment in public infrastructure projects can assist economic growth by giving additional benefits to private investment.'

Which of Gorton's statements is *most likely* correct?

A) Both statements are correct

B) Statement 1 only

C) Statement 2 only

Explanation

Investment in human capital improves knowledge and skills, increasing productivity not hours worked. Public infrastructure projects (e.g. construction of transport networks) will increase the effectiveness of private investment (e.g. distribution centers).

(Study Session 4, Module 12.2, LOS 12.h)

Related Material

SchweserNotes - Book 1

Question #17 of 40

Which of the following investments is *least likely* to be described as a foreign direct investment or FDI? When a foreign company invests in the domestic economy by:

A) purchasing equity securities.

B) building a manufacturing plant.

C) buying property and equipment.

Explanation

Foreign direct investing refers to a foreign company investing directly in a domestic economy by building or buying property, plant, and equipment. A foreign company purchasing equity or fixed income securities issued by a domestic company is best described as indirect investing.

(Study Session 4, Module 12.3, LOS 12.l)

Related Material

SchweserNotes - Book 1

Question #18 of 40

An increase in growth rate of potential GDP in developed countries is *most likely* to be driven by:

A) both capital deepening and technological progress.

B) capital deepening.

C) technological progress.

Explanation

Improvement in potential GDP growth in developed countries is largely driven by technological progress. Developing countries have the potential to grow through both capital deepening and technological progress.

(Study Session 4, Module 12.2, LOS 12.h)

Related Material

SchweserNotes - Book 1

Question #19 of 40

Which of the following is *least likely* to affect the rate of appreciation of the aggregate stock market?

A) Reinvestment of dividends

B) Growth rate in potential GDP

C) Growth in Price earnings multiples

Explanation

The appreciation of aggregate stock market depends on GDP growth rate, growth of share of capital in GDP and growth in P/E multiples. In the long run, stock market appreciation depends only on GDP growth rate as the other two factors cannot increase (or decrease) in perpetuity.

(Study Session 4, Module 12.1, LOS 12.b)

Related Material

SchweserNotes - Book 1

Question #20 of 40

Countries can increase labor productivity by:

A) increase in labor force participation rate.

B) improvement in technology.

C) increase in average hours worked.

Explanation

Labor productivity can be enhanced by capital deepening and/or improvement in technology. Increase in labor force participation and average hours worked will increase the size of labor force but not labor productivity.

(Study Session 4, Module 12.2, LOS 12.g)

Related Material

SchweserNotes - Book 1

Question #21 of 40

While having lunch with a group of friends, Francine Lenser, CFA, was overheard saying the following: "The recent boom in technological advances should keep the economy growing. Whenever the economy slows, someone will come along with a bold new idea that kick-starts it."

Lenser's statement *most accurately* reflects the:

A) endogenous growth theory.

B) neoclassical growth theory.

C) exogenous growth theory.

Explanation

Lenser's statement is a decent layman's description of the endogenous growth theory. This theory argues that economic growth can continue indefinitely as long as technological advances are made.

(Study Session 4, Module 12.3, LOS 12.i)

Related Material

SchweserNotes - Book 1

Question #22 of 40

Tamay Farthani, CFA, is studying the economic growth rate in several developing and developed countries. She believes there is strong evidence that well developed financial markets enhance growth prospects by channeling investment to projects with the highest risk-adjusted returns and by encouraging the use of leverage.

Farthani is correct regarding developed financial markets impact on growth regarding:

A) only channeling investment to projects with the highest risk-adjusted returns

B) only the use of leverage

C) both channeling investment to projects with the highest risk-adjusted returns and the use of leverage

Explanation

Well-developed financial markets encourage investment and hence growth by channeling investments to those projects with the highest risk-adjusted return. An increase in leverage resulting from the development of capital markets may lead to higher risk but not growth.

(Study Session 4, Module 12.1, LOS 12.a)

Related Material

SchweserNotes - Book 1

Question #23 of 40

Bob Forster makes the following statements regarding economic growth theories and trade barriers

Statement 1	Removing trade barriers and allowing the free flow of capital often leads to countries specializing in industries where they have comparative advantage
Statement 2	Developing economies that have not reached the point of significant diminishing returns to capital can attract investment, leading to development of their economy and an eventual slowing of growth

Which of Forster's comments are *most likely* correct?

A) Both statements are correct

B) Statement 1 only

C) Statement 2 only

Explanation

Both statements are correct. Countries are able to focus on comparative advantage when free trade is allowed. Developing economies will see a slowing of growth, and increased investment leads to a convergence to the steady state growth rate of developed economies.

(Study Session 4, Module 12.3, LOS 12.l)

Related Material

SchweserNotes - Book 1

Question #24 of 40

Jon Barnton is studying the potential rate of economic growth in Barini, a large developed economy in Western Europe. He makes the following statement:

'Barini has seen a slowdown in GDP growth over the past decade, the likely causes being a slowdown in population growth, the wealth effect and increasing immigration.'

Which of the factors stated by Barnton is *least likely* to explain the slowdown?

A) Population growth

B) Immigration

C) Wealth effect

Explanation

A slowdown in population growth is likely to constrain growth. The wealth effect reduces total hours worked as individuals opt to take more leisure time. Immigration may offset the slowdown in population growth.

(Study Session 4, Module 12.2, LOS 12.g)

Related Material

SchweserNotes - Book 1

Question #25 of 40

Government incentives that encourage private investment in technology and knowledge are *most strongly* supported by the:

A) neoclassical growth model.

B) endogenous growth model.

C) classical growth model.

Explanation

The endogenous growth model hypothesizes that expenditures on R&D and knowledge capital generate benefits to the economy as a whole, beyond the private benefit to the investing company. Under the endogenous growth model, the resulting increase in growth is likely to be enduring.

(Study Session 4, Module 12.3, LOS 12.k)

Related Material

SchweserNotes - Book 1

Question #26 of 40

Which of the following factors is *most likely* to contribute to a failure of the convergence hypothesis?

A) Low rates of savings.

B) Political stability.

C) Regulatory policies that encourage investment.

Explanation

Low rates of savings is one factor that can cause a developing country to fail to converge. The convergence hypothesis suggest that developing countries should have higher rates of growth of productivity and GDP, which should lead to the per capita GDP, and the gap narrowing between developing and developed economies over time. Other reasons that countries may fail to converge include: low rates of investment, political instability, a lack of property rights, poor education and health, taxes and regulations that discourage working and investing, and restrictions on trade.

(Study Session 4, Module 12.3, LOS 12.j)

Related Material

SchweserNotes - Book 1

Question #27 of 40

Which of the following concepts is uniquely associated with the neoclassical theory of economic growth?

A) diminishing marginal product of capital.

B) In steady state GDP growth rate is equal to growth rate in total factor productivity divided by labor's share of total factor cost.

C) In steady state, the rental price of capital is equal to capital's share of total output divided by total capital.

Explanation

Neoclassical theory contends diminishing marginal productivity of capital but constant marginal product of capital. In steady state, marginal product of capital (MPK) is equal to rental price of capital. MPK = (capital's share of total output as % x output)/total capital = capital's share of total output/total capital. In steady state, GDP growth rate = growth rate in total factor productivity divided by labor's share of total factor cost + growth in labor force

(Study Session 4, Module 12.3, LOS 12.i)

Related Material

SchweserNotes - Book 1

Question #28 of 40

Which of the following would *least likely* occur due to an increase in growth rate of potential GDP?

A) Monetary policy would be expansionary.

B) Credit spreads on fixed income investments widen.

C) Fiscal policy would be expansionary.

Explanation

An increase in growth rate of potential GDP (keeping actual growth rate unchanged) would most likely allow the government to pursue expansionary monetary/fiscal policies. An increase in growth rate of potential GDP reduces expected credit risk for all fixed income securities and hence narrows the credit spreads.

Note: The question does not provide any information about actual growth rate, hence we have to assume it to be constant for a least likely type question.

(Study Session 4, Module 12.1, LOS 12.c)

Related Material

SchweserNotes - Book 1

Question #29 of 40

Hannah Burton is a fixed income analyst and has questioned her supervisor as to why she needs to spend so much time forecasting potential GDP and its growth rate. Her supervisor replies:

"Positive growth in potential GDP leads to an expectation of rising income, leading in turn to higher current savings. Positive growth in potential GDP therefore implies higher real asset returns and higher real interest rates.

Hannah's supervisor is *least accurate* regarding:

A) higher real asset returns

B) higher current savings

C) higher real interest rates

Explanation

Positive growth in potential GDP leads to an expectation of rising incomes leading to higher current consumption, not higher savings. To encourage savings, investments must offer higher real asset returns and higher real interest rates.

(Study Session 4, Module 12.1, LOS 12.c)

Related Material

SchweserNotes - Book 1

Question #30 of 40

Mark Tortal uses the Cobb-Douglas production function to analyze potential growth in emerging economies. His simple model takes the classic form $Y = TK^{\alpha}L^{(1-\alpha)}$.

Using Tortal's model, which of the following statements is *most likely* correct?

A) developing markets typically display a lower α than developed markets

B) Aplha (α) represents the share of output allocated to capital and a smaller α indicates a lower benefit of capital deepening

C) The production function exhibits decreasing returns to scale

Explanation

Alpha (α) represents the share of output allocated to capital and tends to be higher in developing economies. A lower α implies lower benefits of increasing capital per worker (capital deepening).

The model overall displays constant returns to scale.

(Study Session 4, Module 12.1, LOS 12.d)

Related Material

SchweserNotes - Book 1

Question #31 of 40

Hemali is an emerging market economy where labor's share of GDP is 60%. The long-term trend of labor growth is 2%. Capital investment has been growing at 1.5% and is expected to continue at that rate in the future. Hemali has increased the budgetary allocation for primary and secondary education. Accordingly, economists estimate that labor productivity will increase by 2% per year.

The potential GDP growth rate for Hemali is *closest* to:

A) 3.80%

B) 5.50%

C) 4%

Explanation

Using the growth accounting equation:

growth rate in potential GDP = long-term growth rate of labor force + long-term growth rate in labor productivity = 2% + 2% = 4%

(Study Session 4, Module 12.2, LOS 12.e)

Related Material

SchweserNotes - Book 1

Question #32 of 40

Which of the following statements regarding the long-run rate of stock market appreciation and the sustainable growth rate of the economy is *most likely* correct?

A) Long-term growth in the aggregate stock market valuation is most closely correlated to long term growth in P/E ratios

B) Long-term growth in the aggregate stock market valuation is most closely correlated to long term growth in GDP

C) Long-term growth in the aggregate stock market valuation is most closely correlated to long term growth in earnings relative to GDP

Explanation

In the long run both the E/GDP and P/E ratios will have zero growth. Stock market appreciation is therefore most closely related to growth in GDP.

(Study Session 4, Module 12.1, LOS 12.b)

Related Material

SchweserNotes - Book 1

West Lundia and Cragistan are neighboring emerging market nations. These two countries share a border and frequently trade with each other. Cragistan has abundant oil reserves and precious metals, both of which West Lundia lacks. Kurtenstein is a developed market nation that borders both West Lundia and Cragistan and is the largest trading partner for both the other two countries. Kurtenstein is a major buyer of Cragistan's unrefined petroleum and West Lundia's cheaper labor. All three countries are politically stable and have formed a regional monetary union, known as WICKA (West Lundia, Cragistan, Kurtenstein Alliance – pronounced 'wicka'). Their currency, the WiCKA Rand or WCK, is a free floating currency.

Exhibit 1 shows selected economic and demographic statistics are for the three countries and for the year 20X1.

Exhibit 1: Selected economic and demographic statistic for 20X1

	West Lundia	Cragistan	Kurtenstein
Population (in millions)	5.63	5.52	25.18
Labor force participation (in %)	64.50%	64.50%	71.20%
GDP (in $ billions)	$50.0	$50.0	$1,500.0
Share of capital in total GDP	40.00%	35.00%	20.00%
Average Hrs. per worker in labor force per yr	1690.0	1690.0	1898.0

Sovereign credit rating	A	A+	AAA
Savings rate (average is 10.0%)	12.5%	10.0%	5.0%
Imports (in $ billions)	$7.50	$15.00	$250.00
Exports (in $ billions)	$8.00	$20.00	$200.00

Analysts' projected 10 year estimates are provided in Exhibit 2. Cragistan's projected population growth is based on a slightly higher fertility rate but also a less restrictive immigration policy.

10 Year estimates	West Lundia	Cragistan	Kurtenstein
Population (in millions)	6.44	6.51	25.94
Labor force participation (in %)	68.50%	65.50%	72.20%
Average Hrs. per worker in labor force per yr	1794.0	1742.0	1908.4
GDP (in $ billions)	$78.0	$82.0	$2,014.0
Long-term growth rate in technology	1.20%	1.40%	2.00%
Long-term growth rate of capital	4.80%	4.50%	3.00%

The forecasted growth rate in potential GDP for Cragistan and Kurtenstein are 4.4% and 3.0% respectively. The estimated long-term actual GDP growth rate for West Lundia is lower than its estimated potential GDP growth rate.

Monetary Policy:

- All three countries have relatively independent central banks.
- All three target inflation as a primary goal.

Fiscal Policy:

- West Lundia has a slight surplus and actively seeks to affect aggregate demand.
- Cragistan has a moderate surplus and may seek to affect aggregate demand.
- Kurtenstein has a slight deficit and does not actively affect aggregate demand.

International Trade:

- West Lundia is a net exporter.
- Cragistan is a net exporter.
- Kurtenstein is a net importer.

Financial Markets:

- Kurtenstein has well established high volume liquid equity and fixed income markets.
- Cragistan and West Lundia both have moderately liquid equity markets.
- Cragistan has a credit market with more volume and smaller credit spreads than West Lundia.

Question #33 of 40

Based on the Cobb-Douglas growth accounting relation, the forecasted long-term growth rate in potential GDP for West Lundia is *closest* to:

A) 4.7%.

B) 2.6%.

C) 5.1%.

Explanation

The formula for growth rate in potential GDP = long-term growth rate of technology + α (long-term growth rate of capital) + (1 − α) (long-term growth rate of labor).

West Lundia	
LT growth rate for technology	1.2% (given)
LT growth rate in capital	4.8% (given)
α	40.00% (given)
1 - α	60.00%

LT growth rate in labor	
20X1 total labor hours	5.63 mil × 0.645 × 1690.0 = 6137 million hours
20X2 total estimated total labor hours	6.44 mil × 0.685 × 1794.0 = 7914 million hours
Annualized labor growth rate	(7914/6137)(1/10) − 1 = 2.6%

Long-term growth rate in potential GDP = 0.012 + (0.40) × (0.048) + (0.60) × (0.026) = 4.68%.

(Study Session 4, Module 12.1, LOS 12.a)

Related Material

SchweserNotes - Book 1

Question #34 of 40

As compared to Cragistan's long-term growth rate of labor, West Lundia's higher long-term growth rate of labor is *most likely* caused by the difference in the two countries':

A) fertility rates.

B) immigration policies.

C) labor force participation rates.

Explanation

West Lundia has a slightly lower fertility rate and a less friendly immigration policy both leading to a lower expected population growth rate of 1.4% while Cragistan's population is expected to grow at 1.7%. West Lundia's growth rate of labor is caused by a higher labor force participation rate and an increase in the number of hours per worker.

(Study Session 4, Module 12.1, LOS 12.a)

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Question #35 of 40

In which country would a restrictive monetary policy *most likely* be implemented?

A) Cragistan.

B) West Lundia.

C) Kurtenstein.

Explanation

All three central banks target inflation. Cragistan appears to have a higher anticipated GDP growth rate than its potential GDP growth rate. To calculate the estimated GDP growth rate input the following: PV = -50, FV = 82, N = 10 and solve for I/Y. The anticipated GDP growth rate is 5.1%; the potential GDP growth rate is given as 4.4%. Therefore, inflationary pressures are forecasted. Kurtenstein's and West Lundia's estimated GDP growth rates do not exceed their potential growth rates.

(Study Session 4, Module 12.1, LOS 12.a)

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Question #36 of 40

Cragistan's potential GDP growth rate exceeds that of Kurtenstein's. Which difference in factors could help justify Cragistan's higher sustainable growth rate?

A) The savings rate between the two countries.

B) The established financial sector intermediation.

C) The free trade and unrestricted capital flows.

Explanation

One precondition for growth is adequate savings and investment. A country with a higher savings rate is likely to have a higher potential growth since a country with a higher savings rate is less likely to need foreign investments for growth. Because both Cragistan and Kurtenstein are both part of the monetary union with a floating currency, there is no difference in free trade and restrictions on capital flows. Cragistan has a less established financial sector, but the difference in itself may not be a potential benefit or a potential issue.

(Study Session 4, Module 12.1, LOS 12.a)

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Question #37 of 40

The evidence that supports the club convergence hypothesis includes, Cragistan's and West Lundia's:

A) savings rates, and population growth rates are stabilizing and becoming similar to Kurtenstein's rates.

B) long-term growth rates are converging toward Kurtenstein's long-term growth rates.

C) institutions are becoming standardized according to regional monetary union guidelines.

Explanation

Under club convergence, countries can 'join' the club by making appropriate institutional changes. Both West Lundia's and Cragistan's adherence to regional monetary union standards show their willingness to join the developed nations' club. Emerging nations' long-term growth converging toward a developed country's long-term growth rates is part of the absolute convergence hypothesis. The conditional convergence hypothesis states that convergence in living standards will only occur for countries with the same savings rates, population growth rates, and production functions.

(Study Session 4, Module 12.1, LOS 12.a)

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Question #38 of 40

If in Kurtenstein the growth in earnings relative to GDP is 0.50% and the growth of price-to-earnings is 0.8%, then the long-term aggregate equity growth rate is:

A) 4.7%.

B) 3.9%.

C) 3.0%.

Explanation

Over the long-term, the growth in earnings relative to GDP is zero; labor will be unwilling to accept an ever decreasing share of GDP and the growth in P/E ratio will also be zero over the long term as the P/E ratio cannot grow indefinitely. Over the long run, the growth in aggregate stock market value should equal the growth in GDP.

(Study Session 4, Module 12.1, LOS 12.a)

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Question #39 of 40

Which of the following statements regarding endogenous growth theory is *least likely* correct?

A) Endogenous growth theory suggests that private firm spending levels on R&D is often sub-optimal

B) Social returns benefit society as a whole and encourage private firms to invest more aggressively in R&D which in turn fuels growth

C) Endogenous growth theory suggests that economies may not reach a steady state growth but instead permanently increase growth

Explanation

Private firms often fail to consider external social benefits and hence will not invest in the optimal level of R&D for the economy as a whole.

(Study Session 4, Module 12.3, LOS 12.k)

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Question #40 of 40

Which of the following statements regarding convergence hypotheses is *least accurate*?

A) The neoclassical theory contends that countries will eventually have the same growth rates and per capita income

B) The club convergence hypothesis contends that poorer countries with similar institutional features to those of richer countries will grow rapidly to catch up with

C) The conditional convergence hypothesis contends that convergence of living standards requires countries to have the same population growth rates

Explanation

The neoclassical model assumes that all countries have access to the same technology and contends that growth rates but not per capita income will converge.

(Study Session 4, Module 12.3, LOS 12.j)

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