

MBAD 518 Final Exam

Example Article: Builders Downsize the Dream Home

By MICHAEL M. PHILLIPS

(See Corrections & Amplifications item below)

SMYRNA, Ga. ~ For the first time in four decades in the luxury-home business, executives at John Wieland builders are thinking the unthinkable: Maybe houses in the South don't really need a fireplace.

They're also wondering whether new homes require 4,700 square feet of living space. Or private theaters with loo-inch screens. Or super-size-me foyers.

As they draw up blueprints for the house of the post-recession future, builders are struggling to distinguish among what home buyers need, what they want and what they can live without — Jacuzzi by Jacuzzi, butler's pantry by butler's pantry.

"You have to keep taking things out until you hit a critical point where people reject your product," said Jeff Kingsfield, senior vice president of sales at Smyrna-based John Wieland Homes & Neighborhoods.

It's an experiment brought on by necessity. Two years ago, closely held Wieland was building 1,800 houses a year in posh subdivisions in Georgia, Tennessee and the Carolinas, selling for an average of \$650,000 apiece. Today, the company is closing on just 600 homes annually, according to Wieland. It has slashed staff to 330 employees from 1,100.

The American housing market continues to drag, with the Mortgage Bankers Association reporting Thursday that applications for home-purchase loans have hit a nine-year low, plunging a seasonally adjusted 11.7% in the week ending Nov. 6 from the previous week. U.S. sales of newly built homes have fallen sharply as well, from 1.3 million in 2005 to 485,000 last year. The latest Census Bureau data suggest that this year's sales will be even lower. Just 294,000 new homes sold through the first nine months of this year.

More often than not, builders say, post-crash buyers of new homes want smaller and simpler. The average new single-family house peaked at 2,507 square feet in 2007 and has since slipped to 2,392 square feet, according to Census Bureau data.

Average prices are sliding, too, by 16% — to \$269,200 — between the first quarter of 2007 and the third quarter of this year, the Census Bureau reports. Wieland has been hit worse than most. The company's average sales price has already dropped \$153,000, to \$497,000, or about 24%. And company executives expect that a year from now, 85% of its homes will go for less than \$430,000.

That has forced Wieland to design a new range of compact homes and reconsider everything that goes into them. Replacing tiled tubs with fiberglass units can slice \$4,000 off of the house price. Skipping the fireplace can slash an additional \$3,500. In its place, Wieland is trying out a media wall — essentially a place to hang a big television, surrounded by shelves.

Last year, Paula Bishop, one of the company's architects, designed the 4,700-square-foot Arden, a loy-foot-long, five-bedroom, three-stairway showcase planned for a lot near Suwanee, Ga. The laundry room was io-by-7, the mudroom i2-by-8. Including the bedroom, bathroom and his-and-hers walk-in closets, the master suite stretched almost 40 feet. Above the garage was a guest suite with its own kitchen and rec room. A covered breezeway stood off the vaulted breakfast room.

Wieland never built the Arden.

"The price point has dropped in the neighborhood," Ms. Bishop explained.

So the company told her to squeeze 900 square feet and \$60,000 out of the original \$650,000 design.

The other day, Ms. Bishop sketched a new Arden on tracing paper. She erased the rear staircase and flattened out the bay window. She cut the 94-square-foot pantry in half. She turned the mud and laundry rooms into a mud-and-laundry room. The three-car garage remained, but she redrew it so two cars now had to be parked bumper to bumper.

"I haven't gotten to the second floor yet, but it will be a ton smaller," Ms. Bishop promised.

The trend toward smaller homes hasn't hit all builders evenly. Winchester Homes, a Bethesda, Md.-based unit of Weyerhaeuser Co., is launching five new floor plans between 1,973 and 2,800 square feet, the smallest homes the company has ever produced. Vintage Communities, a privately owned developer in Southern California, plans to unveil a 2,900-square-foot, \$1 million-plus model when the market improves — replacing a 3,600-square-foot house that it had priced as high as \$1.5 million in Rancho Santa Fe.

Toll Brothers Inc., a Horsham, Pa.-based home builder whose average home sells for \$600,000, reported this week that net contracts for new homes rose 42% in the three months ended Oct. 31. The company says its luxury customers are more skittish about buying than they used to be, but, when they do make a purchase, they still want large homes with all the frills.

Not so Aaron and Meredith Easley, who put aside the temptation to buy a foreclosed 4,500-square-foot manse and instead bought a 3,200-square-foot Wieland home in Pineville, N.C. "We weren't so concerned about square footage," said Mr. Easley, a 31-year-old trainer with BB&T Corp. "I'm not all about keeping up with the Joneses."

In fact, there are few Joneses to keep up with. The Easleys were the first family to move into what's planned to be an 800-home development, living alone amid empty model houses and expanses of graded land. Wieland executives were so happy to have someone move in that they finished the attic level and put in hardwood stairs for free.

"There's a lot more that comes with those McMansions," said Mr. Easley, whose wife is a kindergarten teacher. "There's a lot more cleaning. There's a lot more heating, a lot more cooling."

Wieland believes the market downshift reflects "a fundamental change in the way people are going to want to live," and not just a reaction to scarce credit and insecure jobs, said F. David Durham, senior vice president. "We're not waiting for things to return to the way they were."

The shift is visible at BridgeMill, a Wieland subdivision in Lancaster County, N.C. The early houses, built near the front gate during the go-go years early in the decade, are massive brick structures. Further inside come the post-boom homes, more cottage than mansion.

The juxtaposition can prove awkward for Wieland. The company's new, smaller homes sometimes compete for buyers with bigger houses it built just a few years ago that hard-pressed owners are now reselling at a discount.

The turbulent market has led the builders to ponder just where they — and their customers — went wrong. Easy credit allowed some buyers to purchase more house than they could afford. And, in reflective moments, Wieland officials wonder if the builders simply fell in love with the idea of creating giant houses loaded with cherry cabinets, body-spray showers and built-in wine coolers. Builders built them because they could; buyers bought them because they could.

Fearful that their market is evaporating, company executives have spent the past few months trying to figure out what buyers are willing to give up, and what they aren't. On the latter list are four bedrooms, a downstairs powder room, a garage that fits at least two cars, and granite countertops in the kitchen. "We feel that's one of the things homeowners are still holding onto," said Shane Roach, vice president of home-building operations.

The master bedroom must have its own bathroom, with separate tub and shower. The tub is still big, but the jets, standard equipment for at least a decade, are now optional in new models. It turns out few buyers used the jets more than a couple of times. The children get one-piece, fiberglass tub-shower combinations, instead of tiled walls.

The "home-management" center -- a built-in desk in the family room — has disappeared from the newest plans. Such luxuries are now available at an extra charge. Window casings are 2½ inches wide instead of 3½ inches wide in one scaled-down model that Wieland is just now putting on the market. In another, company officials want to move a master-bedroom window from the side wall of the house to the rear. Smaller houses come on smaller lots, and having a window on the side makes it hard to avoid noticing that the neighbor's house is just a few yards away.

The other day, Mr. Kingsfield, the company's sales chief, pulled into a golf-club development near Canton, Ga., and stopped at a lot where workers were listening to mariachi music as they stacked bricks to form the facade of a 3,335-square-foot home called the Madison.

A couple of years ago, a new house in this neighborhood would likely have had a two-story foyer that framed the curved staircase inside. But the Madison's staircase is neither grand nor visible from the front door. In fact, it climbs out of the mud room next to the garage.

"In an ego-driven market, it's where you walk in the door and impress friends with the staircase," Mr. Kingsfield said. "That's gone. It's not about impressing anymore. It'll still be nice. There will still be wood, still be trim. But it's more conservative."

The Madison is more rectangular than its predecessor, the 3,750-square-foot Coventry. Curves and corners add cost. The powder room doubles as the guest bathroom. A folding door will conceal the fiberglass tub from dinner guests.

Ms. Bishop, the architect, is in charge of designing a new series of 2,500-square-foot single-family houses, tiny by Wieland standards of old. They're so petite that the double garage ~ 19 feet across - takes up half of the facade. To combat ugliness, she puts a porch on the other half and decorates the garage doors with *trompe l'oeil* seams and handles to look like carriage doors.

There's no formal living room or grand entryway. So she joins the family room, kitchen and breakfast area into one open space, just visible down a narrow hallway from the front door.

"People enter and are in danger of being underwhelmed," admits Ms. Bishop.

That's what happened in the Oconee, one of the new economy designs. The master suite absorbed almost half of the second floor. That left little space for the other three bedrooms. The smallest was so cramped that buyers rebelled. Wieland sold one Oconee and then scrapped the design.

Write to Michael M. Phillips at michael.phillips@wsj.com Corrections & Amplifications

The Smyrna, Ga., dateline in this article was incorrectly given in some versions as Smarmy, Ga. The

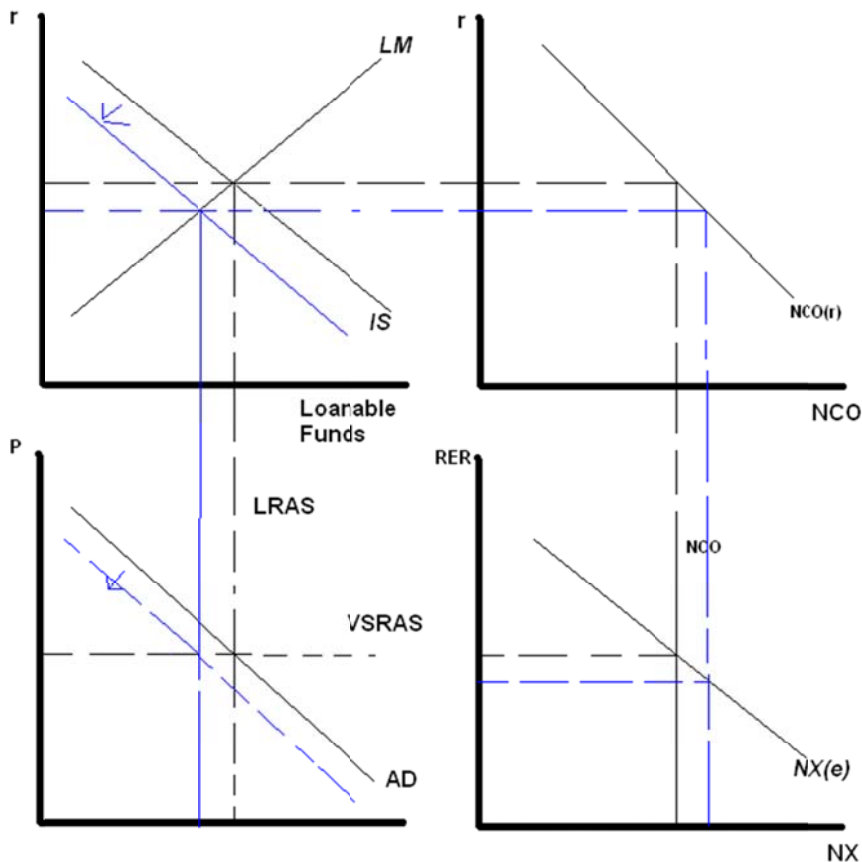
BridgeMill development is in Lancaster County, S.C. The article incorrectly said North Carolina

Example Question: Ch. 12 Builders Downsize the Dream Home

1. Using the large open economy model from Ch. 12 Appendix and the AD-AS model (see the wallet model). Show the impact of “downsized building” on the macroeconomy.
2. If you were a lead national buyer for a large retail home improvement store (Lowes, Home Depot or my favorite Menard’s), how might you change the mix of goods that you stock knowing that homes are becoming smaller?
3. Suppose that foreign producers of washers, dryers, AC units and other home appliances reacted to smaller US homes by reducing prices. What would the impact be on the macroeconomy?

Example Answers: “1” level answers.

1.



Because new home sales are considered Investment (I) then there would be a decrease in AD as the new home sales would be of less \$ value than beforehand. Additionally, the IS curve (Investment-Savings) would also fall because of lowered investment rates. The net result would be a decrease in Y in the VSR, a decrease in interest rates and an ensuing increase in NCO and NX (as $NX = NCO$). The RER would also fall.

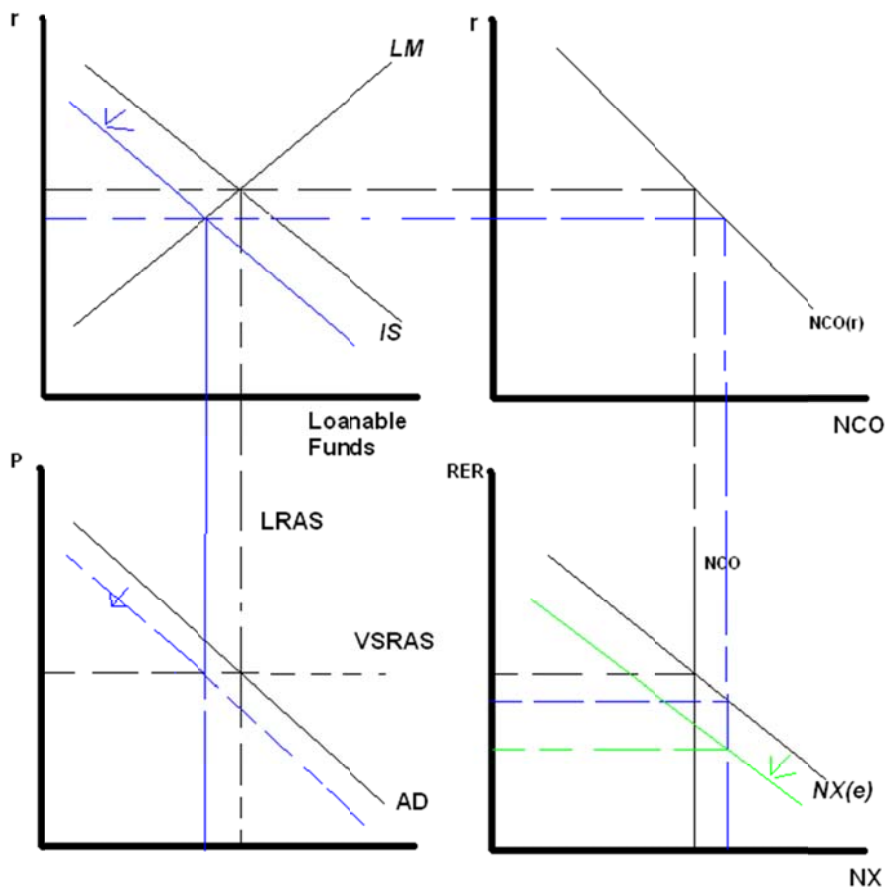
It could be argued that because investment falls there will be less physical capital (K) in the future. If this is true than the LRAS curve would shift in and the VSR decrease in Y would become more permanent. However, large home or “McMansions” as the article describes them may not be true physical capital because the homes may not be very good at producing other products. If the smaller homes don’t decrease effective physical capital than ultimately the price levels will fall and Y will rise as the economy shifts to

the LR equilibrium. This seems more likely as this most recession has had significant deflationary pressure.

2. As the lead national buyer I would be concerned that with less square feet of house, there would be less home improvement projects necessary. Also, decreased square feet may also diminish the home owner's desire for more energy efficient heating and cooling as there will be less space to heat/cool.

However, one distinct product that buyers of these downsized homes may want is better storage. With smaller closets, pantries etc... there may be increased demand among homeowners for better organizational goods. I would consider using less floor space in my home improvement store devoted to newer appliances and perhaps more space for organizational systems, shelving etc... Also, I anticipate that existing home owners who are unable to sell their current homes may also wish to organize their current home better.

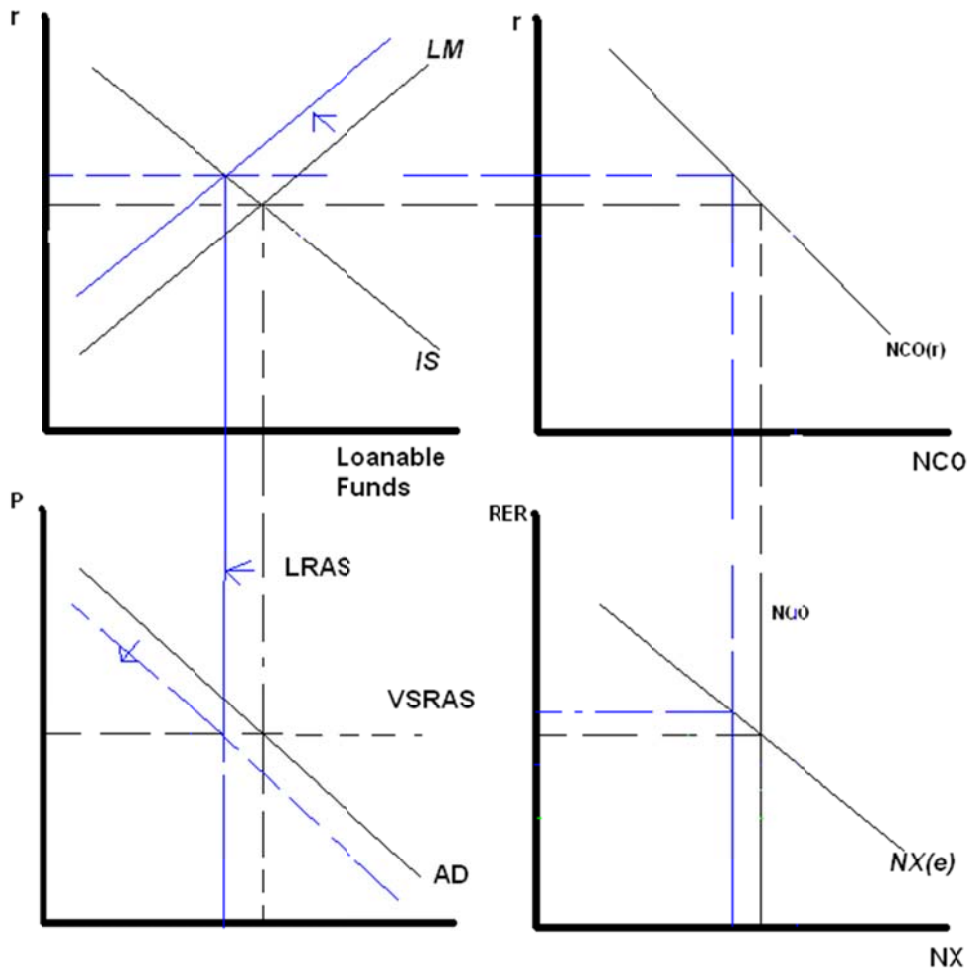
3.



If foreign producer lower their prices than this would tend to encourage more imports. Increased imports would lower the NX curve and lead to a lower RER.

Example Answers: "3" level answers.

1.



Because new home sales are considered Investment (I) then there would be a decrease in AD as the new home sales would be of less \$ value than beforehand. Additionally, the LM curve would also fall because decreases in the demand for loanable funds would also bring about higher interest rates. The net result would be a decrease in Y in the VSR, an increase in interest rates and an ensuing decrease in NCO and NX (as $NX = NCO$). The RER would increase.

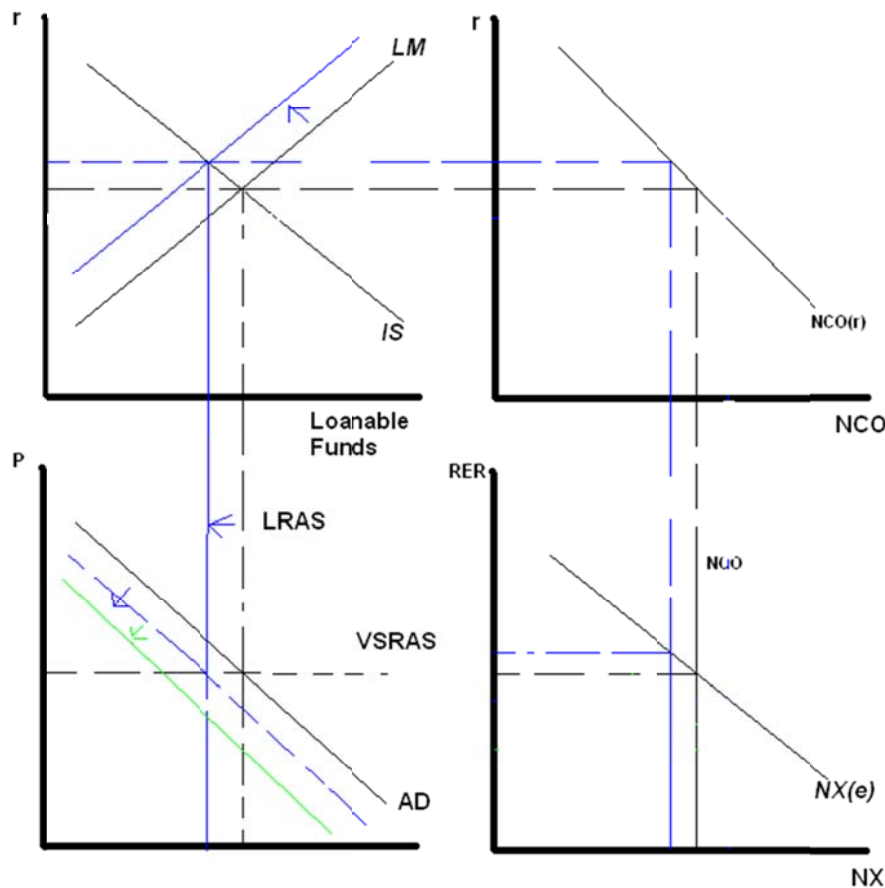
Also because investment falls there must be a decrease in future physical capital. The decrease in capital means that the LRAS curve will shift in. This means that the decrease in home building will lead to no change in the aggregate price level. If I was in charge of the Federal Reserve I would immediately increase the amount of money in the system to lower interest rates by shifting the LM curve back to its original position. If the LM curve shifts back to its original position than the LRAS curve will have to shift back to its original position because the increased money supply will end up invested. Unless there's some big government spending. With big government spending the IS curve may shift in and this would decrease the interest rate even further and aid the recovery in the LRAS curve even more.

2. As the lead national buyer I would be concerned that with less square feet of house, there would be less home improvement projects necessary. I know what its like to live in a small apartment and I think that smaller homes will just make people more likely to live in apartments. Afterall, why move into a house if it is smaller than an apartment? But if I wanted to get those people into my home improvement store

(Menard's is my favorite too! ☺) I guess that I would just make it easier for consumers to get a credit card with the store. Maybe even do a 6 month no payment plan for new customers to aid them in their financing.

I think financing will be the key to encourage the consumer with a smaller home or an apartment. I probably wouldn't change the product mix of my Menard's too much just because I think that its probably set up that way for a reason. Afterall, if that's the way it's been best for that store to make money then it is highly unlikely that I can improve on that formula by reacting to a transitory shock like this most recent recession.

3.



If foreign producer lower their prices than more consumers will buy foreign products and then NX will fall. Because NX falls the AD curve will fall as well. China buys many US bonds and helps keep US interest rates low. So with the increased sales to Chinese firms that money will end up buying US bonds and that will encourage more government spending and the IS curve may also shift inward.

Example Answers: "4" level answers.

To be avoided. Needless to say, it is worse than C level answers. It's probably the most verbose of answers with the least bit of economic rationale (Note that "3" level is more verbose than "1" level). I don't even want to write it because it's just too depressing and quite frankly your answers had better be an improvement over the "3" example given here. If not, I'll be happy to flunk you before you've paid all of your MBA tuition. I sort of think of that as saving you money. I really mean it. It would be an act of kindness.

Chapter 1. Chinese Take a Cotton to Hoarding

1. Develop a model of pricing in the cotton market ($P_s = F(\dots)$, $P_d = G(\dots)$) where F and G are some generic mathematical functions. What would happen to the price of cotton if hoarding becomes more prevalent?
2. Which variables would be considered endogenous or exogenous to a small producer like Yu Lianmen? Is cotton beset with very sticky prices?
3. Nylon, polyester and acrylic are synthetic fibers often used as a substitute for cotton in clothing. Polyester is probably the largest substitute – what is it made of? What could change the price of polyester based on what it is made of?

Chapter 2. Central Banks Grapple with Competing Forces

1. Acquire information about unemployment, real GDP growth and inflation about the United States (FRED is a good resource). Look at the last time the Federal Reserve was raising interest rates – what was the inflation rate, unemployment rate and real GDP growth rate then compared to now?
2. Examine the quarterly Real GDP, unemployment rate and inflation rate of a country in the European Union (<http://epp.eurostat.ec.europa.eu> is a fine resource). Are they currently in a recession? Is their inflation under control? Compare their current economic performance with the eurozone as a whole.
3. Why are the Central Banks (including the Fed) reacting differently to the same global economy?

Chapter 3. India Graduates Millions but Too Few are Fit to Hire

1. Show the Cobb-Douglas Production function and derive the Demand for Labor. What happens to real wages and the real rental rate if L increases?
2. The article implies that the new graduates are not able to do the tasks that employers demand. What would happen to wages of the best workers compared to an average worker overtime as Kapital investment increases in India's growing economy?
3. Imagine you are hiring many of these new graduates for 24/7 Customers. How would you train your new employees to have the skills that you require?

Chapter 4. Emerging Nations Tackle Food Costs

1. Because the world's poorest spend a large percentage of their income on food what products do you expect the world's poorest will spend less on as a result of the food inflation?
2. Which country's policies do you think will have the largest impact on reducing inflation? Why?
3. Suppose that the increased commodity prices are the result of speculators worried about the large quantity of money printed by central banks. If the newly printed money is never removed than what will happen to nominal interest rates and real interest rates according to the Fischer effect.
4. Imagine that you're in control for buying the raw commodities necessary to run a factory. How would you reduce the impact of commodity price on your finished products?

Chapter 5. Vietnam Devalues Currency by 8.5% as Inflation Looms

1. How would you characterize Vietnam's exchange rate regime? How would this exchange rate regime impact the prices (or RER) of raw materials imported into Vietnam by Vietnamese manufacturers?
2. The article briefly mentions credit default swaps and basis points – define these and explain what the changes mentioned in the article suggest about investor confidence.
3. Assume that the Vietnamese economy is a small open economy with perfect capital mobility – show and explain the impact of the revaluation on the Vietnamese economy. Communist countries are typically not considered open - what would the impact of the revaluation be if they were not an open economy?

Special Trade Section. In Nigeria Used Cars are a Road to Status

1. What trade theory does Nigerian car trade appear to support and why? What are the important imports and exports of Nigeria?
2. What factors would impact a Nigerian car dealers decision to import used cars from the U.S. as opposed to new cars produced in Japan, S. Korea or other countries?
3. Suzuki sells cars everywhere around the world. Look up their South African product offerings here <http://www.suzukiauto.co.za/>: What one car would you bring to the Nigerian market and why? How would you price it?

Chapter 6. Downturn's Ugly Trademark: Steep, Lasting Drop in Wages

1. Some states have higher employment costs via unemployment compensation, higher minimum wages, union rights etc... Explain how higher employment costs will impact the natural rate of unemployment in those states?
2. Choose one state and examine the unemployment situation there now. What type of unemployment is it facing now?
3. Review the most recent monthly unemployment report from bls.gov. What challenges are there? What bright spots are there?

Chapter 9. Telecom Giants Battle for Kenya

1. Show the AD-AS of Kenya – what does the increased spending in cell phones indicate about changes to the Kenyan economy?
2. Describe the business model for cellular phone company. What are fixed costs, variable costs? How would the competition impact your strategy?
3. Using AD-AS – describe how increased investment in cellular networks would impact the economy in the VSR, SR and LR.

Chapter 11. BOTH Brazilian articles

1. Using both the IS-LM and AD-AS model on the Brazilian economy because of the increase in the taxes on overseas credit card purchases.
2. Using both the IS-LM and AD-AS model on the Brazilian economy because of the increase in taxes on portfolio investment from abroad. Describe what portfolio investment is and how it differs from Foreign Direct Investment (FDI).
3. Using both the IS-LM and AD-AS model on the Brazilian economy because of inflation. Then show what would happen if the Brazilian central bank raised their interest

rates. What would happen if there was no increase in interest rates and spending cuts were made instead?

Chapter 12 and Appendix. Europe Wrangles Over Greece

1. Assume Greece is a small open economy with a fixed exchange rate. Show how default might impact their economy. Show how decreased spending would impact their economy.
2. Compare interest rates in Germany with those in Greece. Why the disparity? Why would Germany, France and other EU nations give money to the Greek government?
3. Now assume that the EU is a large open economy with a flexible exchange rate. Show how Greek default might impact the EU economy. Show how decreased spending in Greece would impact the EU economy.

Chapter 12 and Appendix. China Raises Rates to Fight Inflation

1. Look up the “incompatible trinity”. Where does China stand in the “incompatible trinity”? What makes you believe this?
2. Using the Mundell-Fleming model show how the increase in interest rates would impact the Chinese economy.
3. Using the wallet model show how the increase in interest rates would impact the Chinese economy.

Chapter 12 and Appendix. Japan the Business Aftershocks

1. Show the impact of the earthquake/tsunami/nuclear disaster on the Japanese economy using the wallet model.
2. Which industries/firms listed below do you think will bounce back quickly? Which will be harmed for a very long time?
3. Given that Japanese interest can't go much further down – what type of fiscal and/or monetary policy could be used to aid the recovery of the Japanese economy and why would it help?