

# [Usa and singapore inflation](https://assignbuster.com/usa-and-singapore-inflation/)

Introduction Have you ever wondered why the price of an item that you normally buy keeps increasing every other time you buy it? Every month, prices of raw materials keep rising and rising. Companies are forced to increase their prices to keep the profits margin up and employees are also expecting higher and higher wage due to the simple fact that they can’t afford the increasing cost of living. On one hand, companies need to price their goods relatively high to cover increasing cost of raw materials. But at the same time, employees are demanding pay rose since commodities prices are increasing.

If the companies increase their employee’s wages, they need to increase the price of their products again, leading to higher prices in commodities. This interlocking effect is the work of inflation and if a country is not cautious, their economy can be severely damaged. In a way, inflation affects everyone living in this world and in today’s economy, not everyone has the same income and purchasing power. When cost of living becomes too high, it would have undesirable effects on us. So how high is too high and how much is too much? Therefore, it is important for us to understand what exactly is causing this constant increase in price and find ways to control it. For the rest of this paper, our analysis is based on an article from The Straits Times dated 25th February 2008, entitled “ January inflation may be as high as in 70s oil crisis”.

Literature In this paper, our main objective is to explain the inflation process that is ongoing in Singapore today and our views on how the Singapore government can effectively tackle this situation. The proposed solution is derived by comparing and analyzing the various methodologies used to control inflation. The analysis done in this paper is approached from a micro to macro perspective. Firstly, we will introduce the definitions of inflation, various types of inflation and what causes inflation. Secondly, we will be covering on the global outlook of the economy. Thirdly, on a micro perspective, we will be analyzing factors affecting housing prices and transport prices and how they cause inflation to the economy.

Fourthly, we will introduce the four different approaches to control inflation. Following that, by analyzing how Singapore controls inflation, we can propose solutions to suit its economic policy. Next, since the article mention about he 1970s oil crisis, we will analyze how United States control inflation during that period to provide different solution alternatives. Lastly, we will give our recommendation to control the current inflation in Singapore. What is Inflation? Inflation is defined as the constant, inordinate and general increase in price over a period of time. There are different degrees of inflation, mild inflation, strato-inflation and hyper-inflation.

Mild-inflation is defined as inflation with no more than five percent increase in price per annum. This shows a slow rise in price level and often is associated with low level of unemployment. The second type of inflation is strato-inflation, where inflations are in the range of about ten percent to several hundred percent. This type of inflation normally is experienced by the developing countries. Lastly, hyper-inflation is defined as a fast acceleration of price increase that usually leads to the breakdown of the country’s monetary system since the old currency may have to be replaced.

Inflation isn’t necessarily bad towards the economy. Most of the countries are aiming to keep inflation at the mild level each year, less than five percent. Having a mild inflation enables the economy to prosper slowly and more jobs will be created thus leading to a higher output. Causes of Inflation There are two main causes of inflation, demand-pull inflation and cost-push inflation.

A demand-pull inflation occurs when the aggregate demand is too high for the aggregate supply, hence, prices increase. Aggregate demand is defined as the sum of the country’s consumption, investment, government spending and net exports; therefore, any rise in one of these factors could potentially increase aggregate demand. If an economy is not at full employment, the increase in aggregate demand could still be maintained by utilizing unemployed resources to increase supply. However, if an economy is already at full employment, no further increase in output is possible, hence, a demand-pull inflation occurs. As illustrated in Fig 1 , the AD curve will move rightwards, from AD0 to AD1 showing an increase in aggregated demand, while keep the AS0 constant. As a result, the equilibrium price increases from P0 to P1.

On the other hand, cost-push inflation occurs when the cost of production increases. When the cost of roduction increases, companies will respond partly by raising prices and passing the costs on to the consumer. This can be illustrated in Fig 2 , the increase in production cost will shift the AS curve leftwards, from AS0 to AS1, indicating a drop in supply. When supply drops, the price level P0 will increase to P1 and the output falls to Q1. The two types of inflations are not mutually exclusive.

Wage-price spiral represents a vicious circle process in which different sides of the wage bargain try to keep up with inflation to protect real incomes. This process in turn is one cause of inflation. It can start either due to high aggregate demand or due to supply shocks, such as an oil price hike. Fig. 3 illustrates the wage-price spiral.

In Fig 3, AD0 shifts rightwards to AD3 and AS0 shifts leftwards to AS3, showing an increase in price level. When this happens, the possibility of a wage-price spiral may happen. Global Outlook Currently, oil and food has been the main contributor to the global inflation. And oil prices have increased over fifty percent over the last year and raw food prices have increased by an alarming fifty-five percent at the end of January 2008. On average, prices of commodities have risen by thirty-one percent . Due to these increases in raw materials globally, consumers all around the world are feeling the pinch of higher transport costs, manufactured goods and consumer items.

With more and more middle classes in China and India growing at a rapid rate, the demand for food has increased exponentially. Factors like increasing global prosperity lead to an increase in demand. Unexpected weather conditions lead to a decrease in food supply. Thus, with increased demand and decreased supply, food prices will be inflated globally. Cost-push and Demand-pull inflation Current inflation in transport — Cost-push inflation Economists believe that the government actions such as road usage tariffs and taxi fare increase have added to the pressure of inflation in Singapore.

These factors coupled with the increase in global oil prices have led to an increase in the transportation costs. This increase is categorized as Cost-Push inflation, where inflation is caused by the shifting of AS curve leftwards, increasing the price level. The shifting of the AS curve happens because there is an increase in the cost of production. There are four main causes of Cost-Push inflation, wage-push inflation, profit-push inflation, import-price-push inflation and tax-push inflation . For example, the increase in global oil is a form of import-price-push inflation, where there is an increase in the price of imported raw materials with no change of demand.

The increase in ERP is a form of tax-push inflation. Fig. 4 explains how the cost increase results in price increase: as oil price and ERP keep rising, the cost of providing transportation service increases. For example, taxi drivers earn less because of higher fuel price and higher ERP charges, given the demand of taxi service (amount of passengers) unchanged. Therefore, some taxi drivers will quit because they are not making sufficient amount of money. According to production function, the real GDP will decrease because of decrease in labour.

With no change in demand, aggregate supply curve shifts left and the equilibrium price will then move from P0 to P1 and equilibrium quantity will move from Q0 to Q1. Current inflation in housing price¬¬¬ — Demand-pull inflation Keynes argued that inflation occurred when there are changes of real variables in the economy. Demand-pull inflation occurs then aggregate demand is rising at a sustained rate so that aggregate demand exceeds aggregate supply at the existing price level. It is inevitable that the price level is being persistently pulled upwards, especially under conditions of full employment.

The current situation in the Singapore property market is that the excessive demand has been driving market price to an all-time-high. Much like the 1996 property peak in Singapore, the overwhelming demand in public housing is caused by many reasons combined. Thus, the following part will analyze each existing and potential factors which have triggered or influenced the rise in current price. Analysis will also be given in a comparison to 1996 property market. What factors has caused the excessive demand for housing? 1. Economy as a whole-the blooming economy i.

GDP Growth The buoyant economic growth has a direct effect on rising demand for housing. As the national economy is doing well, people become wealthier each year than before. After a certain amount of wealth collection, they tend to use their wealth to invest in long-term property, for example, real-estate. From Fig 5 , if we compare the GDP growth rate with two periods: 2002 to 2007 and 1986 to 1997, the similarity between them is that the GDP growth rate is all positive and the peak of both periods (1993 and 2004) happen two or three years before the upsurge in housing price (1996 and 2006).

One explanation is that the fastest wealth-collection year paves the way for increasing consumption in the property market. The two to three years delay is reasonable as the rise in market price needs time to accumulate. ii. Exchange rate From Fig 6 , the exchange rate (SGD to USD) in latest 7 years has been falling from a 1. 79 after 1997 financial crisis to a 1.

50 recently. Using USD as a yardstick, the appreciating Singapore dollar means increasing purchasing power in imported goods. This advantage saves money for consumers holding SGD, allowing them to invest the extra saved money in other areas, in which a part of it flows into the property market. As investment increases, more sales and resale are created and the demand for housing increases. Similar pattern of growth can also be observed in two time periods: 1986 to 1996 and 2001 to 2006. 2.

Rising wages and good job prospects Followed by the continuing buoyant economy, household income has also increased significantly. This is shown by Fig 7 in which the average monthly household income from work has increased consistently from 2002 to 2007. The people in Singapore possess more money than before. Taking inflation into consideration, we find that the rate of price increase of the commodity is a lot lower than the rate of increase in household income. (Take 2007 as an example, the annual inflation rate is 2.

, which means goods in general that worth 100 dollar in 2006 worth 102. 1 in 2007. However, a household which earns 100 dollar income in 2006 earns 107. 4 in 2007 as seen in Fig 8.

) This leads to an accumulation of wealth, which can be in the form of saving or other assets. 3. The effect of collective sale A collective sale (also termed en-bloc sale), is a combined sale by the owners of two or more property units to a common purchaser. The most common collective sale is the sale of all units in a stratum or flatted development to a purchaser. Before the amendment, an en-bloc sale of all the units in a tratum or flatted development could take place only if all the unit owners agreed.

The amendment provides that if a specified majority of unit owners agree to a collective sale and meet the requirements of the act, they may apply to a Strata Titles Board for an order that all units and the land in the development be sold. Upon implementation of the newly amended act, collective sale which would not be approved before because of several objections may be enforced to happen. The new act brings notable effect on current property market because collective sale are made easier. In the year of 2007 alone, deals of collective sale have topped $13 billion. The wrecking ball has displaced many home owners, causing a supply shortage and a spike in demand for homes. Associate Professor Tu Yong of the National University of Singapore’s department of real estate blames collective sales for ‘ distorting the market’.

However, she reckons that as long as the economy continues to perform, demand should be genuine and sustainable. 4. Economic bubble Property agency PropNex chief executive, Mohamed Ismail adds that there could be some ‘ froth’ in this current high demand. Many fear prices will move higher so they are jumping on the bandwagon. Whether they really need a new home or can afford to wait is another issue, he says. Part of the reason of this fear can be traced to the culture.

It can be expressed as manifestation of Singapore’s infamous ‘ kiasu-ism’ (the colloquial expression for ‘ being afraid to lose out’). The fear of being left behind others creates a non-sustainable prospect of overheated economy. It is non-sustainable because the ‘ demand’ is really not the demand for a house or an apartment, but a demand to keep up with the trend. Once the bubble burst, the demand will plunge.

What factors have prevented supply of housing from keeping up with demand? 1. Impossibility of short-term solution Ultimately, there is no short-term solution – supply requires time to respond. With demand rising unexpectedly fast this year, supply has no chance of keeping up immediately because of HDB’s current build-to-order system, which builds flats only when a certain percentage of buyers commit. The process from planning to completion usually takes four to five years. The up-shooting demand together with the build-to-order policy triggers a ap between demand and supply in the current housing market. It can only be mitigated in the following years to come.

2. Accurate estimation of the market and government planning The Government has to be careful to avoid a future supply glut even though many continue to call for immediate solutions. During the latest property peak of 1996, the long queues of flats vanished just as HDB laid the last brick in the massive batch of flats couples had demanded. The oversupply, of tens of thousands of flats, took years to clear and suppressed resale prices.

For HDB’s part, it is not enough just to build more flats and put into market but to do so at the right time, in the right amount. In a word, the concern that oversupply, which usually comes on the heels of high demand, will disturb the market in preventing the government to lift supply. Time is needed in the situation for careful planning and accurate estimation. Overall effect of current demand and supply on the price of housing The overheated economy, salary-raise, collective sales and culture lead to a marked shift in demand for housing. However, the delay and prevention in supply result in only a minor increase in supply.

Thus, the shift in demand outweighs the shift in supply. As shown in Fig 9 , higher equilibrium price P1 and quantity Q1 is attained. The higher price in turn will arouse overheated investments and boost up the average house income and GDP. A vicious circle occurs where higher demand is caused by overheated investment and then further results in an even greater amount of investment. CPI Consumer Price Index (CPI) is an index number measuring the average price of consumer goods and services purchased by households.

The percentage change in the CPI is an indicator of inflation. The way to calculate CPI is by taking representative items commonly purchased by the majority of households, combining the price increase of each item regarding to the weight each item have in CPI calculation. It has a base year which CPI is 100, and the following years’ CPI is shown as proportional percentage to base year. A change in CPI, if positive, means an increase in percentage of CPI and otherwise, means a decrease in percentage of CPI. The January 2008 CPI is 108.

0 as 2004 CPI is 100, and it has increased 6. % from January 2007. Index in housing has increased 11. 1%, high above the average of average index. As seen in Fig 10 , given the 21% weight of housing in CPI, this means the price rise in housing is the most important catalyst of CPI rising in the year 2007. Policies to control inflation Fiscal Policy Fiscal policy concerns deliberate and discretionary changes in government expenditure or taxes.

Keynesians argue that if inflation is demand-pull in nature, then a deflationary fiscal policy would reduce aggregate expenditure until they are equal to the full employment level of output. From Fig 11 , a tax on labor income will cause the labor supply curve, LS to shift leftwards, lowering the quantity of labor employed. Since labour is part of the production function, if labour supply decreases, real GDP will decrease as shown in Fig 12. From Fig 13 , a tax on interest income has no effect on the demand for loanable funds and weakens the incentive to save and lend. Therefore, supply of loanable funds will decrease and supply of loanable funds curve, SLF, will shift leftwards. At new equilibrium, real GDP decreases and price level increases, causing inflation.

Since GDP = C + I + G + (X – M), reduction in government spending could directly lower aggregate demand. From Fig. 14 , The AD curve will shift leftwards and the real GDP will decrease. Monetary policy Monetary policy is another demand-management policy to combat demand-pull inflation. Such a policy consists of decreasing supply of money through the use of quantitative tools to vary the supply of money and raising the rate of interest. It also consists of qualitative tools such as selective credit controls to reduce expenditure on goods and services.

A tight monetary policy will lead to a fall in consumption and investment. Since consumption and investment are components of aggregate demand, there will be a decrease in aggregate demand. From Fig 15 , assuming AD1 is the aggregate demand when economy is at inflation, the decrease in aggregate demand will result in a leftward shift from AD1 to AD0, lowering price level to P0 and reducing inflation. At AD0, the ideal situation in which equilibrium price level P0 and full employment level of output Q0 is achieved. In reality, this is difficult to achieve as the decrease in money supply might cause a fall in output and employment in the short run.

This is illustrated again in Fig 15 where the curve AD0 might actually shift to AD2, leading to a decrease in price level P2 and a decrease in output and employment at Q2 due to the multiplier effect of such a policy. Therefore, the government has to weigh the short run side effects of fall in employment and output with the long run effects of achieving price stability. The Fed initiates a tight monetary policy by selling government securities on the market, raising the discount rate, or increasing reserve requirements. The use of monetary policy by America will be touched on later in the report. Direct Control: Prices and Incomes Policy There is a vicious cycle where wage increases cause firms to raise the prices of their products. In turn, workers demand pay rise in excess of the inflation rate.

The government has to control to ensure that wages don’t rise faster than the improvement in productivity in the economy. One example is the price freeze or an income freeze. This policy can fix a wide variety of targets for its components: 1. A freeze on increases can be imposed, no increases are allowed. 2. An increase in wages can be fixed in money terms or in percentage terms or some combination of the two.

For example, China enforced a freeze on all government-controlled prices due to inflation, now at its highest rate for more than in a decade. A vast array of prices was frozen under the control of government in China, ranging from oil, electricity and water to the cost of parking and park entrance fees. Exchange Rate Control The central bank will intervene in the foreign exchange market by buying domestic currencies and selling foreign currencies to maintain a stable exchange rate. By selling foreign currencies, the supply curve will shift leftwards, leading to the appreciation of the domestic currency. If the domestic currency is appreciating, the countries’ export will be dearer and imports cheaper.

Cost of production will be lowered with cheaper imported materials. If the cause of cost push inflation is due to high import price, then the problem is solved at the source. How does Singapore control inflation? To provide solutions to the current problem, Singapore’s current inflation policies have to be closely examined. Over the years, due to a strong currency, Singapore has enjoyed moderate inflation rates over the last 3 decades, hovering between 0. 3% and 4. 8%, except during two oil crises in 1972 and 1982 .

, as shown in Fig 8 However, the rising prices in the global market, especially for food and oil, have lead to imported inflation since last year. To offset the effect of rising inflation, Singapore government adopts the following strategies: 1. Exchange rate policy. Singapore adopts a “ managed float” policy that provides it with flexibility to deal with shocks while at the same time maintaining the purchasing power of the SGD. The long-term appreciation attributes to two reasons.

Firstly, it is due to the economic development and the transformation of the economy since the early 1980s. Secondly, national thriftiness has led to large current account surpluses. Substantial public sector surpluses and the high private savings rate have led to persistent current account surpluses since the mid-80s. .

Diversify food sources to minimize spikes in the prices of food . The Agri-Food and Veterinary Authority of Singapore (AVA) is facilitating private importers buying from new sources overseas. For food products that are already imported from well-diversified sources, the Government will continue to work with retailers to increase public awareness of cheaper food choices and substitutes. 3. Support home ownership .

Even lower-income Singaporeans have substantial equity in their homes which rises over time and is protected against inflation. It insulates Singaporeans, especially the retirees from increases in rental costs which are a significant long-term concern in other countries. 4. Provide direct assistance to Singaporeans who face problems coping with the cost of living . For example, helping needy Singaporeans get a job, and encouraging them to stay at it, upgrade themselves and support their family members.

In 2007, the Government introduced the Workfare Income Supplement (WIS) scheme, to add to the income and savings of Singaporeans at the lower end of the wage ladder. For a worker above 45 and earning a wage of $1, 000 or below, the scheme will supplement his wages by 10% to 20% each year. 287, 000 workers have received their first payouts in January this year. 5. Keep economy competitive and build up capabilities to enjoy good economic growth .

This is the best offset to global inflation, which will last not just for a few months but possibly a few years – to educate citizens, attract new investments, create jobs and sustain good growth of incomes for the whole population. 1970s oil crisis As mentioned in the article, inflation levels may be as high as the 1970s oil crisis. Through analyzing the past, it will provide some insights to solve the current problem. The oil crisis occurred in late October 1973 when oil supporting countries placed an embargo on crude oil to Western nations.

This was meant to punish the Western states that had supplies weapons and aid to Israel. Arab oil-producing countries wished to pressure the Western countries, specifically America into demanding that Israel withdraw their troops from the Arab territories that they had occupied since 1967. This included the ones that the Israelis had recently conquered (Palmer, p. 71).

They used the embargo as a political tactic and for economic means. Once they had placed the embargo on the west, the world’s largest consumer of oil, the Arabs realized the power that they had over the world through oil. Once they had resumed shipments of oil they were able to keep the prices high and made a larger profit. Panicking investors and oil companies added to the surge in oil prices in the U. S. As shown in Fig 16, the embargo reduced the supply of oil by shifting the supply curve leftwards from S0 to S1, increasing the price of oil to P1.

The panicky investors and oil companies buying more oil lead to an increase in demand, shifting the demand curve rightwards from D0 to D1, further increasing the prices to P2. Relation of increase in price of oil and inflation in the 1970s There is a large body of empirical evidence indicating that oil price shocks are related to increase in rate of inflation and a slowdown in output growth (Hutchinson, 1993). Hamilton (1983) shows that all but one of the US recessions since World War II have been preceded, with a lack of around three-quarters, by a large increase in crude oil petroleum. Oil or energy is a third factor in the aggregate production function. Hence, from Fig. 17, due to a decrease in oil as a factor of production, there will be a decrease in production.

Thus the aggregate supply curve shifts from SAS0 to SAS1 that will produce a higher price level P1 and lower output Q1. Oil price hikes are transmitted to industrial economies by reducing aggregate demand (Bruno and Sachs, 1985). A rise in the price of oil for net oil importing countries represents a decline in net exports, and a fall in real income and real wealth. A reduction in real wealth and real income is expected to decrease aggregate demand through effect on consumption expenditure. Using Fig 17, the decrease in aggregate demand will shift the demand curve to the left from AD0 to AD1 causing the price to decrease to P2 and real GDP to Q2. The decrease in aggregate supply outweighs the decrease in aggregate demand.

Therefore, the final result will be an increase in price from P0 to P2 and decrease in real GDP from Q0 to Q2, leading to a phenomenon known as stagflation which occurred during the period. There are other reasons from research about why inflation rose during the 1970s. (Primiceri, 2005)There are three categories of such views: the “ bad luck” view, the “ lack of commitment” view and the “ policy mistakes” view. The bad luck view is that the sudden shortage of oil supply caused the inflation. The “ lack of commitment” view is that inflation was high as the policymakers did not have any incentive to keep inflation low.

The “ policy mistakes” view is that the monetary policy makers were not enough and were less responsive to inflationary pressures. How America reduce inflation during that period through monetary policy? The Fed, the markets, and economists alike recognize that trend inflation is closely connected to money growth and that achieving price stability requires controlling money. Money growth was viewed as an important indicator of future inflation of disinflation by both Fed and the markets. The Fed occasionally takes particularly aggressive funds rate policy actions to encourage real growth or reverse rising rate of inflation. In 1970s, efforts to reduce inflation were cut short due to weakness in economic activity.

Thus, inflationary expectations became more embedded in the public’s decision making procedures. However, in October 1979, Fed started to reduce inflationary pressures. The Fed sold open market securities, like government securities and other financial instruments to reduce the reserves in the banking system. With reduced reserves, the bank shrinked deposits by decreasing loans and thus, money supply decreased. The decrease in reserves is shown by leftward shift of curve from RS0 to RS1 as shown in Fig 18. As seen in Fig 18 and 19, the decrease in money supply and loanable funds raises interest rate and slows the growth of borrowing and pending.

This will in turn lead to a decrease in aggregate demand, reaching the equilibrium price level quickly by the multiplier effect. Short-term interest rates were driven up nearly 5% until in March 1980 where they exceeded 15%. As economy weakened during 2nd quarter of 1980, Fed reversed its strategy and allowed interest rate to decrease which led to an increase in real GDP growth by 8. 4%.

However, inflation rose at an annual rate of 9. 8% to 10. 9%. The run-up of the funds rate to its 19 percent peak in January 1981 marked a return to the high interest rate policy. The lowering inflation was not painless as unemployment rose to 9. 7%, highest since 1930 Great Depression.

This relationship between unemployment and inflation is shown by the short run Philips curve shown in Fig 20 . A decrease in inflation will lead to a movement along the curve and thus lead to an increase in unemployment. Further analysis of anti-inflationary policies during 1970s Another alternative is using the Keynesian way which Fed can pump money into the economy and the government can increase its spending and lower taxes. This will in turn increase aggregate demand, leading to increase in price level. Economy moves back to full employment at a higher price level. If Fed has responded in a Keynesian way, during the oil price increase in mid-1970s, OPEC saw the advantage of forcing up price of oil.

A new rise in oil price will decrease aggregate supply and the curve will continue shifting leftwards. If Fed has chased it with an increase in AD, the economy would have been in a free-wheeling inflation as shown in Fig 21. The price will continue to increase though employment and output is at equilibrium. Thus, the Fed did not respond in to second wave of OPEC price increases in early 1980s. Instead, the Fed held firm and even slowed the growth of aggregate demand to further dampen inflation consequences of OPEC’s action.

The reason why Fed held firm is that if OPEC saw a temporary gain from pushing up the price at which they are selling their resources and if the Fed always accommodate the increase to prevent unemployment and slack business conditions, the cost-push elements will have a free-rein. OPEC will continue increasing the price of oil due to its stronger bargaining power. USA had implemented measures to weather oil shocks with gradual introduction of more flexible and energy-saving technologies, the development of oil commodity markets, more rational energy policies, more flexible labor markets and other structural changes in these economies have helped insulate output and inflation from oil price fluctuations. (Hutchinson, 1993)Thus, with these measures, the short run aggregate supply curve will not shift leftwards too drastically due to shortage of oil as these measures also facilitate production.

This is shown by a minor shift in SAS0 to SAS1 instead of a drastic shift to SAS2 ¬ as shown in Fig 22 . The rate of inflation will be reduced and price level will be less vulnerable to oil supply shocks. Relationship between US inflation and Singapore inflation In general, U. S inflation affects inflation in Singapore. Empirical results (Cheung and Yuen, 2002) indicate that under both fixed and flexible exchange rate arrangements, a large economy has significant influences on a small open economy.

Conclusion and recommendation From our research, Singapore relied on the exchange rate policy to control inflation. At the current situation, the cause of cost-push inflation is due to high import prices of oil. Therefore, by using exchange rate policy, the problem will be solved at the source. However, demand-pull inflation is not solved under the exchange rate policy.

Thus, we recommend that the Singapore government should adapt more flexible monetary policy and learn how United States controlled inflation during the 1970s by adjusting real interest rates. In the long term, Singapore can insulate from oil supply shocks by developing energy-saving technologies, oil commodity markets, more rational energy policies and more flexible labor markets.