Housing Policies and Urban Land Values in China: Lessons from Latin America and Singapore[1]

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ABSTRACT

This paper addresses the challenges facing China in accelerating the pace of rural-urban migration, with special attention to the impact on income distribution and popular housing costs resulting from upward pressure on urban land values. It explains the push and pull influences on migration and why its continuation is justified by the large gap between rural and urban incomes and the relatively higher income elasticity of demand for urban-based goods and services. The provision of affordable housing is an integral part of this structural shift programme. The paper thus considers the most appropriate ways in which housing finance can be mobilised, including via urban land values captured on behalf of the whole community so both the quality and affordability of the housing stock can be increased. Positive and negative lessons for China are offered from the different urbanisation and fiscal policy experiences of Latin America (especially Colombia) and Singapore.

1. Introduction

China undoubtedly needs, and potentially can sustainably afford, a continuing boost to its urban residential construction sector, at an even higher rate than the overall impressive annual average achieved in this field in recent decades. Thirty years after switching to a more market-oriented economy, China has had an unprecedentedly high average annual rate of economic growth, attaining by 2008 a per capita income estimated at US$2,940 or US$6,020 in terms of purchasing power parity (World Bank, 2010). For countries at this level of development the typical proportion of the population living and working in urban areas is around 55% (Henderson 2009:6); but for China the proportion is much lower at only 44.9% in 2010 (United Nations, 2011). The proportion was less than 20% in 1980 at the start of China's reform period (having risen little during the volatile Maoist era from a mere 13% in 1950). Much has been achieved since then, but while rapid economic growth has clearly gone hand-in-hand with rapid urbanisation, until recently this urbanisation has actually been at a significantly slower pace (3-4% per year) than the 5-6% rates typically achieved by other developing countries during their periods of rapid economic growth (Choi 2000; World Bank 2002).

Choi (2000), Henderson (2009), World Bank (2009), Gao (2010) and many others highlight that this relatively modest record is partly due to legal restrictions on rural-urban migration associated with the *hukou* system that has been motivated by a desire to avoid the crowded shanty-town slums and associated social unrest prevalent in many cities in Latin America, Africa and other parts of Asia.[2] One major consequence of these restrictions, however, is that the rural-urban income gap in China is one of the widest in the developing world. Choi's (2000) estimate for the World Bank put the gap at about 2.5:1 between 1978-1998, and it appears

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[2] Nevertheless, according to the Population Reference Bureau (2010), 38% of China's urban population in 2005 lived in what are described as slums. (The comparable figure for Colombia was 18%, and zero for Singapore.)

that the gap has been widening since then: according to the World Bank (2010:66) it had risen from around 2.6 in 1999 to around 3.3 by 2006.

Henderson (2009), for example, would ideally like to see the *hukou* system abolished on economic efficiency grounds but accepts that there must be a transition period to avoid rural-urban migration at a pace that would add to the strains already experienced by the most attractive cities. A first step could be to relax restrictions at the provincial level before relaxing them nationally. However, the more that decent housing and jobs for potential migrants can be provided, the faster that *hukou* restrictions can be relaxed in an orderly fashion.

This paper seeks (i) to explain the general economic forces that lie behind these structural shifts, and (ii) to indicate the positive and negative lessons for the pace and pattern of house-building and urban design that China can gain from the experience of Colombia and Singapore at similar stages of their development, and (iii) to highlight the ethical and economic implications of the privatisation of the massive land value increments that accompany rapid growth.

2. The main economic forces that drive urbanisation

The shift in the structure and centre of gravity of countries as they develop economically is conventionally explained by grouping the influences into "push" and "pull" forces. However, the distinction is not clear-cut because of the way these forces interact on each other. One can speak of the distinct forces of supply and demand but it must be remembered that one person's or one sector's supply is ultimately their demand for the goods and services provided by other people and sectors in exchange.

Nevertheless, consider first the forces on the side of demand. In the early stages of development very low incomes force most people to spend the bulk of their subsistence incomes on food, basic clothing and basic shelter. Agriculture is then the dominant sector and its land-intensive nature forces the population to live in scattered communities that satisfy their basic needs at the level of the household or village, with relatively little market-based specialisation and exchange. The lack of specialisation keeps labour productivity low.[3] As incomes grow, there is more money for food but the proportion spent on it tends to fall while it rises for other goods and services. This is the near-universal "Engel's Law" that can be expressed as a tendency for the income-elasticity of demand for food and raw materials to be significantly less than unity while for other goods and services it is significantly higher (with the weighted sum of the elasticities adding up to unity). As supply responds to demand, so labour and capital are pulled toward the production of manufactured goods and related services such as transport, education and health. Village settlements expand if they can provide these more efficiently than on the farms; and as incomes and patterns of demand alter in favour of non-agricultural products so villages become towns and towns become cities that exchange their products for those of the farms and mines.

Next consider forces on the supply side. Advances in technical knowledge, experience, skill, capital accumulation and organisational and institutional change increase the direct and indirect productivity of labour. Thanks to astonishing improvements linked with the Green Revolution over the last 50 years, actual and potential productivity gains have been more powerful in world agriculture than in most other economic sectors. The most notable gains are

[3] Adam Smith (1776) famously considered that increased specialisation or division of labour is the most powerful way in which wealth increases, but that its extent is limited by the size of the market. For this reason his *magnum opus* was primarily an attack on prevailing mercantilist policies that restricted markets by setting the interests of producers above those of consumers. To this end, Smith called for enhanced competition and mobility in both product and factor markets. The implications for policy on rural-urban migration should be obvious but remain controversial.

associated with new high-yielding “miracle” seed varieties of rice, wheat and other crops that can increase output per acre and per person six-fold or more as compared with traditional varieties. Powerful gains also come from increased mechanisation and the complementary use of chemical fertilizers, pesticides, irrigation and drainage.

Why, then, are the national (as opposed to best-practice) statistics on agricultural productivity increases relatively disappointing in many developing countries, and what are the implications for overall economic growth? A common, apparently “common-sense” answer is that there has been under-investment in this sector. A deeper answer seeks the reasons for this “under-investment” and notes that “markets clear at the short end”. That is, if productivity and potential supply increase faster than the increase in effective market demand it follows that prices will fall until the increase in supply matches the slow increase in demand. The point is that although, by definition, productivity increases in agriculture reduce costs and that this usually reduces prices – especially in highly competitive agriculture – the low elasticity of demand for foodstuffs (even among poor people) means that the trend increase in demand for agricultural output is typically only a little greater than the growth of population – perhaps 3-4% a year in most developing countries or somewhat more in countries like China where overall growth of incomes is much higher.

The conclusion is that it is a mistake to identify – as many commentators carelessly do – revolutionary increases in *productivity* with an increase in *production*, or sales, or farm incomes. When productivity increases outstrip production and sales, the lower prices of cost-reducing innovators drive higher-cost non-innovators out of the market, forcing them either to retire into subsistence farming or to migrate to towns and cities in search of an alternative livelihood. This is just as true if the innovations are in the form of (i) capital-intensive and labour-saving machinery such as tractors and combined harvesters or (ii) the greater use of labour-intensive inputs such as new yield-increasing seed varieties, fertilizers, irrigation and drainage. The latter certainly enable much more to be planted and harvested on the farms where they are used, and these farms may well employ more labour as a result. But it is a common fallacy of composition to assume that what is true for the innovating farms is also true of the sector as a whole. Productivity increases on the more commercial, modernising farms (usually the larger ones with greater profits and access to credit) capture a larger and larger share of a relatively slowly increasing market demand. This again implies that the smaller, non-innovating farmers lose market share and are driven out. The net increase in overall farm output and measured average productivity thus is less – often much less – than the increase in production and productivity on the innovating farms where these are both increasing rapidly.

This explains the “push” or labour-displacing effects on migration arising from the supply side of agriculture interacting with inelastic demand. An implication is that these effects can be exacerbated if government policy subsidises agricultural investment rather than relying on the natural response of investors to actual market demand; and this is true even if the subsidies focus only on labour-intensive inputs.

However, there are simultaneous “pull” effects of increased agricultural productivity on urban employment opportunities. Lower costs that reduce food and raw material prices benefit consumers, especially those in urban work who do not rely on agriculture for their money incomes. Urban-sector employers can even reduce the real wages they need pay to attract workers and this enables them to employ more workers than otherwise.[4] Higher incomes

[4] In reality most countries experience modest or high rates of general inflation, so that increased productivity seldom leads to an actual fall in money prices. Rather, prices rise less than otherwise and this allows urban employers to raise money wages by less than otherwise. This improvement in the urban sector’s terms of trade with agriculture *means that real wages fall from the urban employers’ perspective while still rising in terms of purchasing power from the employees’ perspective.*

increase the demand for agricultural products, even though it declines as a proportion of incomes. If the resulting increases in farm incomes lead to higher investment in that sector, this may further increase productivity ahead of the slowly increasing demand, thus further displacing labour in net terms because of the relatively lower labour requirements per unit of output.

The question then is whether this dynamic "pull" effect from rising agricultural productivity on urban employment dominates its "push" or labour-displacing effect. The fact that in very many countries, not least in China, the average rural-urban wage gap has not significantly narrowed is prima facie evidence that push has dominated pull, and that the pool of very low-productivity rural workers remains so high that there is little upward pressure on rural wages. This in turn keeps down the wages of the marginal, less skilled and experienced urban workers (mostly the recent immigrants) even as the increased concentration of labour in more densely populated cities generates the agglomeration economies that increase overall and *average* urban incomes, so widening the *average* rural-urban income gap.

As mentioned, the overall price and income elasticities of demand for urban goods and services are greater than unity. This means that as urban productivity rises, the lower real costs and prices increase expenditure on these urban products. In contrast to agriculture, this has a positive impact on urban employment despite reduced labour requirements per unit of output. The income elasticity of demand for urban services of all kinds (transport, distribution, finance, education, health, law, administration and entertainments) is often somewhat higher than for urban industrial goods while the productivity-increasing potential in these activities is generally lower than in both agriculture and manufacturing. This combination explains why the share of services in both GDP and overall employment tends to increase as the economy grows. Similar comments could be made about the construction sector, but here the experience is mixed, for reasons to be examined in detail below.[5]

Given the expectation of strongly positive employment-generating effects from the combination of productivity growth plus high demand elasticities in urban sectors, what are we to conclude if in practice the cities are failing to provide enough well-paying jobs for the large and growing number of surplus workers who are either disguisedly unemployed in agriculture or severely underemployed in the low-income urban informal sector?[6] It is that in agriculture the push effects are dominating its pull effects, and that the cities are failing to exploit fully the opportunities that this underemployment represents for a better utilisation of all available resources.

Insofar as these conditions still characterise China's cities despite decades of unprecedented growth, this is the justification for an even greater pace of urban development there than has so far been achieved. We may now show what positive and negative lessons may be gained from examination of policies pursued in Colombia and Singapore in their attempts to deal with similar problems of underemployment, poverty and inequality.

3. The Colombian experience

[5] Connected with the possibility that demand is artificially repressed in this sector.

[6] Disguised unemployment is the well-known term for workers who share a limited amount of work and incomes but effectively produce nothing because the remaining workers could easily make up for their work if they leave. In this underlying sense their *marginal product* is zero, while each worker's shared "institutional" income tends to the *average product* of the family or social group. Most studies calculate the size of this surplus labour in a static sense by observing how many workers' underlying marginal product is zero *under current conditions*. This understates its potential *dynamic* extent as and when workers are found alternative higher-paying jobs that increase demand for agricultural products which thereby both motivates and provides the funding for labour-saving innovations.

For many years Colombia's economic growth has been greatly below its potential when considering the degree to which its abundant natural, physical and manpower resources had been chronically underutilised. Population growth had doubled in only 20 years – from 11 million in 1953 to 22 million in 1973 – due to high rural birth rates coupled with a sharp decline in infant mortality with the spread of vaccination programmes. Thereafter, population growth began to decline, from 3.3% a year to 1.5% today, so the next doubling of population, to 44 million in 2005, took rather longer (32 years).

Population growth was accompanied by significant shifts to the cities. The urban population was 33% of the total in 1950 and this had risen to 45% by 1960, a similar percentage to that of China today. However, this figure was inflated by a violent civil war in the 1950s because it was concentrated in rural areas which led to unusually strong outmigration. In the absence of adequate conventional housing in central locations, a large proportion of these migrants settled on the peripheries of the bigger cities, notably around the capital, Bogota, in unlicensed squatter settlements or 'barrios de invasión', erecting flimsy structures and illegally tapping electricity from nearby overhead cables.[7] Many of these settlements would later be regularised by the authorities and provided with paved roads and vital services such as water and sewage. Being distant from the major employment centres, workers had to suffer long commuting times on overcrowded fume-filled buses.

What was clearly needed was a more adequate supply of shelter for actual and potential immigrants into the cities. Its absence dilutes the ability of industry and commerce to prosper by exploiting great potential urban agglomeration economies. Agglomeration economies are also restrained if there is an inadequate supply of other structures such as factories, offices, schools and shops, plus related infrastructure such as the road and utilities network.

All of these construction-sector projects have one thing in common: they are long-lasting investments. They also tend to be expensive because large in relation to current household incomes in the case of housing; relative to current business incomes in the case of factories, offices and shops; and relative to current state revenues in the case of public infrastructure. In the case of private sector investments, this almost always necessitates outside funding over a long period of time during which the buildings are providing their current services. Young families near the beginning of their working lives can usually only buy a house or apartment costing two or three times their annual income after supplementing their own limited savings with a mortgage repayable over a long period. Similarly for new businesses. So these structures are usually only affordable or desirable purchases if the monthly debt servicing costs are at or below monthly rents for comparable properties.

This was the background to a national plan launched by President Misael Pastrana in 1972 as a bold "Plan of Four Strategies". Its main author was Lauchlin Currie, a Canadian-born New Deal economist in the United States during the administration of President Franklin D Roosevelt. FDR appointed him as his personal White House adviser for economic affairs from 1939-45. He first visited Colombia as head of a World Bank mission in 1949 and stayed on to advise successive Colombian governments on economic policy until his death in 1993 (Sandilands 1990). He wrote the main background paper, *Taming the Megalopolis* (Currie 1976), for the inaugural 1976 UN Habitat conference in Vancouver, and drafted Recommendation D.3 of the Vancouver Action Plan on "Recapturing Plus Value" (in Spanish, "plusvalia"): "The unearned increment resulting from the rise in land values resulting from change in use of land, from public investment or decision or due to the general growth of community". This plan was mainly designed to accelerate development via measures that would greatly boost urban job opportunities.

[7] The population of Bogota was approximately 1.7 million at the 1964 census and 2.9 million in 1973. By the time of the 2009 census, it was nearly 8.6 million with a further million in nearby municipalities.

In brief, the four interrelated strategies were (i) plans to boost urban housing via a new housing finance system together with a new form of urban design; (ii) measures to boost non-traditional exports by ensuring that the exchange rate would no longer be chronically over-valued; (iii) increased agricultural productivity, to be accomplished partly through greater investment expected to follow from higher demand resulting from faster growth of national income together with the consolidation of rural farms as and when poorer farm families emigrated to better-paying non-agricultural work; and (iv) improved income distribution related to the first three strategies but intended to be complemented by more progressive taxation, notably by the capture of rising urban land values via a "valorisation tax".

The first priority (and the first of the four strategies) was to ensure that existing and future urban families could enjoy far superior housing conditions than currently prevailed for the majority. Hitherto, there had been three main types of housing and housing finance:

(i) Unlicensed sprawling settlements with overcrowded, unsanitary shelters built with very poor quality materials. Finance for these very low-cost shacks was generally out of the personal savings of the occupant families together with their own work. They were usually on low-cost land whose value was low because of its relatively remote location and/or because it lacked basic services. Sometimes these 'barrios de invasión' were on more valuable central-city sites that were often being held vacant either for speculative reasons or intended for planned conventional buildings of a higher standard that were scheduled to use the land more intensively (because intended for higher-rise buildings of a kind that could not be built by unspecialised, unskilled amateurs).

(ii) Heavily subsidised popular housing for the very poor with funds provided by the state-owned Instituto de Credito Territorial (ICT). These housing units were superior to those typical of *barrios de invasión* but still generally of low quality, overcrowded, and, because of the ICT's financial constraints, also on low-value land that was not necessarily the best location from a good urban planning perspective.

(iii) Subsidised higher quality housing for the middle and higher income groups financed and built by the Banco Central Hipotecario (BCH) – or Central Mortgage Bank – that held a virtual monopoly on this section of the mortgage finance industry.

Subsidies place a heavy direct or indirect strain on the national budget. In the case of both the ICT and BCH, finance was raised via tax-exempt bearer bonds that favoured higher-rate taxpayers, at the expense of government tax revenues. During the 1960s the average rate of inflation in Colombia was 11%, but fluctuated between 5% and 25%. Meanwhile, the nominal interest on ICT and BCH bonds was fixed at 8.5% up to 1968 and 11.5% thereafter. Thus the real rate fluctuated widely, was very low on average, and often negative. This resulted in a very low capture of funds except briefly between 1968 and 1971 when nominal rates were raised and the inflation rate fell.[8] The government responded to the deficiency of saving by requiring large forced purchases of ICT and BCH bonds by public institutions such as pension funds and other financial institutions.

In addition to these low-return forced savings, the government directly subsidised the ICT out of the central budget. These were necessitated by large losses made by the ICT on its operations that involved chronic de-capitalisation. This was because the ICT was unable to charge a high enough interest rate to its low-income borrowers to cover its costs. Even with low or even negative real interest rates the delinquency on its loans was very high. (In October 1969, for example, the International Labour Office (1970) reported that 53.3% of the ICT loan portfolio were in arrears.)

[8] An important lesson was evidence of a very high interest elasticity of supply of savings. This made possible a temporary boost to building in the late 1960s and, as we shall see, also after the 1972 reforms.

This compared with a negligible delinquency rate at the BCH which, with its monopoly and a focus on high-income customers, could usually cover its costs. However, for this it needed to charge 16% on its mortgages, and restricted the typical mortgage term to 10 years because of the risks associated with a high and very variable rate of inflation.[9] These conditions significantly repressed demand for its mortgages, but this was in line with the relatively sluggish growth of its available funds, and the BCH resisted change in its monopoly status that insulated it from competitive pressures to grow.

The combined result of this housing system and related pattern of urbanisation was that the growth of both commercial and social housing was every year falling far short of the growth of new family formations in the towns and cities, hence continuously adding to an already substantial housing deficit.[10] As for social housing (known in Colombia as '*vivienda popular'* or '*vivienda de interes social'*) the self-built and ICT homes were either slums from the start or, in the case of the ICT, were often to be the slums of the future because of their poor quality, small size, poor location, inadequate amenities, and social segregation. Poor quality of materials and low density also implied relatively high maintenance costs compared with middle-income housing.[11]

The only way to reduce the country's growing housing deficit was to introduce changes that would ensure an adequate volume of long-term loans on affordable terms such that the growth of decent (non-slum) urban dwellings each year would exceed the growth of new family formations in the rapidly growing cities. On the one hand the supply of savings for housing finance needed a big boost. On the other hand demand for mortgage finance had to match a greatly increased potential supply. As the problem was stated by two of the architects of the new institutional arrangements put in place in 1972, Lauchlin Currie and Luis Eduardo Rosas (1986):

> As rates of inflation rose it became less and less possible, without a heavy subsidy, to provide an adequate volume of long-term loans at low interest rates. As there were many competing demands for public expenditure, public low-cost housing was starved and the economy as a whole was deprived of the large but latent outlet for savings and the impulse for the generation of activity and employment that building in general could provide.

To convert housing into a leading sector that could propel the entire economy on to a higher, sustainable growth path required simultaneous action on both the supply and demand side of its financing. On the supply side, mortgage institutions needed to give savers safety, liquidity and a reasonable real return that was attractive relative to alternative destinations for their savings. On the demand side, the institutions needed to attract many more borrowers by offering mortgages on much more affordable terms than before. The conundrum was resolved by focusing on the problem of inflation.

The ideal would be to eliminate inflation. Then, savers could be offered an attractive interest rate of, say, 4% in both real and nominal terms, with borrowers then charged, say, 6%. At this rate of interest, many more borrowers could afford a house compared to a situation in which inflation is 15% and the nominal interest rate 21% (to give a real rate of 6%), or even if nominal rate were raised only to 15% with a real rate of zero. For at 21% the interest payments required

[9] This meant that nominal rates elsewhere in the market fluctuated more widely that the BCH rates, creating an unstable feast-and-famine pattern to its inflow of funds.

[10] According to the ICT, the urban housing deficit (defined as the difference between the number of urban family units and the size of the urban housing stock, with consequent unhealthy overcrowding) grew from 112,000 in 1951 to 254,000 in 1961 and 586,000 in 1971 (Sandilands, 1980:60).

[11] This has been a chronic problem with low-income public housing even in high-income countries such as Britain and the United States. In Britain, mainly under Prime Minister Margaret Thatcher in the 1980s, council house tenants were given the opportunity to buy their homes. Maintenance costs were thus removed from the public purse.

in the first year of a mortgage (along with amortizations) would more than triple; and even at 15% they would more than double. Admittedly borrowers' real outstanding debt would decline more rapidly in the inflationary situation, but the initial real cash flow or "front-end loading" of repayments would be unsupportable for many potential borrowers whose real incomes would otherwise be adequate.

Unfortunately, Colombia has a poor record on inflation, though not as bad as in other Latin American countries such as Brazil, Peru, Argentina and Chile where the value of money has occasionally been destroyed by hyper-inflation of 10,000% a year or more.[12] Much of the blame lies with lax monetary control. The problem is not merely that inflation has been high on average, but that high inflation is almost always coupled with greater volatility. This plays additional havoc with the schedule of real repayments for borrowers if lenders insist on variable rate mortgages. And if mortgage rates are fixed, long-term lenders have difficulty attracting funds in the face of the more flexible rates in short-term markets.

3:1 Colombia's index-linked mortgage finance system

Faced with this difficulty, two other Latin American countries, Brazil and Chile, had earlier introduced index-linking (or "monetary correction") schemes, to protect their housing finance from the distorting effects of inflation. In 1972 Colombia went further than Brazil or Chile, to make housing (and related infrastructural investment) a motor of accelerated development while simultaneously protecting the real competitiveness of exports as the second motor (via regular index-linked adjustments of the exchange rate). What is interesting from the point of view of lessons for China is that in both Colombia and (as we shall see) Singapore, these two motors of growth have been viewed as inherently complementary. Without adequate housing, the cost of employment in the export sector is increased as the supply of healthy workers is reduced. Likewise, housing supply and demand are both greater with a more dynamic tradable goods sector. The important thing is the greatly increased mobilisation of currently underutilised labour and capital via the hitherto inadequately explored potential for increasing the real demand for both housing and exports without recourse to an excessive use of the central bank's printing press.

3.1.2 The distinction between real and monetary demand and its significance for housing finance

The distinction between real and monetary sources of demand is sufficiently important for an understanding of the potential for a non-inflationary expansion of the supply of housing as to merit a digression at this point. What counts is not demand that is merely backed by an increase in the money supply. Rather, the key is an increase in real market demand backed by real incomes and the associated increase in real supply of goods and services in exchange – together constituting the real market size which was Adam Smith's key to the wealth of nations. Smith's insights were extended by Allyn Young (1928) in his seminal presidential address to the British Association on "increasing returns and economic progress," and by Lauchlin Currie (a Harvard student of Young's) in a later series of papers that linked Young's insights on the possibilities of self-sustaining rather than self-exhausting growth with his equally deep understanding of monetary theory and policy (Currie, 1974, 1997; and Currie in Sandilands, ed., 2004).

[12] The consequential rise in nominal interest rates together with severely negative real rates causes both supply and demand for long-term finance to collapse. The construction sector bears the brunt of this – for example in Chile in the early 1970s (Sandilands 1980). The housing market is not immune to this problem even in developed countries in times of moderate inflation: for example, in the case of the US Savings and Loan (S&L) debacle of the 1980s.

Unfortunately there is much confusion, even among economists, on the monetary causes of inflation, partly because of semantics when terms such as “bank deposits”, “money” and “credit” are not carefully defined or differentiated. The money supply comprises notes and coin in circulation plus bank deposits. However, there are two distinct types of deposit: (i) highly active balances in demand or current accounts held by businesses and individuals to bridge the relatively short intervals between current incomes and outgoings, and on which interest is not paid or is paid at a much lower rate than on (ii) the much less active saving or time deposits whose motivation arises from a different source – the desire for interest income.

Since demand deposits are almost universally considered as a component of money or the means of payment, it is perhaps understandable why many people include *all* bank deposits (including saving deposits) in the definition of money, and even go on to include saving deposits in non-bank financial institutions such as savings and loan associations and other mortgage “banks”. However, consider the following scenarios in two consecutive years:

(i) A 10% increase in the actual circulating means of payment – in the sense of notes and coin plus current accounts (the conventional M1 definition) – used in settlement of debts between buyers and sellers, when real GDP is growing at, say, 7%. Then inflation would run at around 3% if demand for money as a percentage of GDP (the inverse of the velocity of circulation) is fairly constant. At the same time, assume a similar 10% increase in time or saving deposits in banks and non-bank financial intermediaries. The inclusion of saving deposits would give rise to a broad “M2” (if only bank deposits are included) or a broader “M3” definition of money (if deposits in non-bank financial intermediaries are also included) and this would then grow at the same 10% rate as the M1 sub-set.

(ii) A 10% increase in M1 but an increase in the growth of time deposits from 10% to 20% so that in this year M2 and M3 now grow at, say, 15%.

If we focus on M1 there should be little or no difference in the rate of inflation (for a given growth of GDP and velocity of circulation) in the two years. But if we focus instead on the 15% growth of M2 or M3 we may be led to the anomalous and absurd conclusion that a growth in savings is inflationary.[13] For example, how could we then explain, without careful examination of the composition of the deposits, the very different impact on price inflation if, in year 2, the growth of M2 were still 15% but were now the weighted average of 20% increase in M1 (brought about by an increase in central bank reserves) while the growth of saving deposits is unchanged at 10%?

I have belaboured this point because when in Colombia the new index-linked housing finance system, launched in 1972 (and explained below), led to a substantial increase in saving deposits, its critics – who included bankers exposed to new competition and central bankers anxious to shift the blame for their own failure to control the money supply[14] – pointed to the accelerated increase in overall deposits (“M3”) and blamed the new system – and the increase in building that it financed – for the increase in inflation.[15] Actually, the initial natural lag

[13] Note too that if we focus on the growth of “credit” (or the total of *loans*) in the economy we would have to include loans based on all deposits in the system. But this aggregate can and does differ widely from the growth of the means of payment (M1), depending on the rate of saving. Thus at one moment a given growth of credit can be inflationary and at another time deflationary.

[14] The central bank was not given independence until 1991. It was also often dominated by spending ministers who treated it as a development bank (fostering development with inflationary finance) as well as a central bank whose main objective should be monetary control. These conflicting objectives can help explain why Leonardo Villar (2009) finds that monetary policy in Colombia has often failed to be contra-cyclical.

[15] See, for example, Miguel Urrutia and Olga Marcel Namen (2011). Urrutia had been on the board of the central bank in 1972-74 and headed the National Planning Department with a change of government that was less enthusiastic about housing as a dynamic leading sector. The modifications he and subsequent planners made are described with relatively little complaint in Urrutia and Namen’s 2011

between a very big increase in deposits in the new system and their disbursement meant that a portion of the deposits were temporarily congealed in a special account in the central bank. This helped to restrain the excessive expansion of the money supply over this period.

When investment is financed by savings out of real incomes backed by savers' real production, those resources are available to satisfy borrowers' instead of savers' demands. For example, the resources can now be used in exchange for housing (via mortgage finance intermediated by the relevant institutions) instead of consumer goods. There is a change in the composition but not the total of real expenditures. When increased savings are used to finance new housing, they buy the wages and related consumption of construction workers as well as the local building materials. The latter have relatively low import content, thus generating high domestic multiplier effects. Building also employs many unskilled workers (who nevertheless can quickly learn skills on the job) who were previously underemployed. The net effect is a potentially self-sustaining and non-inflationary boost to the real rate of economic growth, along the lines described above.

All depends, however, on an increase in real effective demand for housing that matches the potential growth of real saving instead of being reliant on inflationary finance. In fact we have explained how inflationary finance (that is, finance not supported by an increase in real savings) had the effect of repressing demand for long-term mortgages because of the distortions caused by high and variable interest rates in the face of inflation. The purpose of the 1972 reforms was to resolve this problem.

3.1.3 The main features of Colombia's index-linked housing finance system

The key institutional reform was to create a number of competitive, private Savings and Housing Corporations (*Corporaciones de Ahorro y Vivienda* – CAVs) whose assets (exclusively construction and mortgage loans) and liabilities (liquid saving deposits) were authorised to be expressed in an inflation-adjusted unit known as "units of constant purchasing power" (Spanish acronym: UPAC), with daily adjustments to the index in line with a moving average of the previous year's consumer price index.

This had two important consequences. Firstly, by offering savers for the first time a guaranteed real return (initially set at around 5% net) the CAVs experienced a dramatic inflow of funds that greatly increased the overall saving rate (and was not simply a diversion of funds from other institutions) and the proportion going to finance new building and their final owners.

Secondly, on the demand side, even though the initial real rate of interest was set at around 8%, this was only about half of what borrowers had to pay in interest in the early years of a traditional mortgage contract at that time. Furthermore, the attractive rates made it less risky for the CAVs to extend the typical mortgage period to 15 years. The result was that demand initially ran well ahead of the increased supply of saving.[16] This explains why initially demand

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paper (though they did acknowledge the political influence of middle-class borrowers) despite their debilitating effects. In similar vein, a later Planning Department head, Juan Carlos Echeverry (2002) is representative of those who regard housing as a relatively "unproductive" investment without seeing the irony in their view of investment as "productive" when, for example, it is for the manufacture of bricks, cement, glass and high-speed lifts that would not be produced in the absence of final demand. *I attach my review of this book as an Appendix.*

[16] As mentioned above, disbursements followed savings with a lag. Meanwhile the excess was held on deposit in the central bank, so the increased saving had a restraining effect on the unfortunate contemporary inflationary expansion of money (that Urrutia and Nemen [2011] do not mention). A vital lesson for China is that investment should be financed only by real saving, except to the extent that the money supply can be expanded in a non-inflationary way if it is in line with growth of real GDP and the related growth of real demand for money to hold for imminent current transaction purposes. It is thus possible both to boost real spending while pursuing a policy of severe monetary restraint.

had to be restrained by a high (but still affordable) real interest rate and relatively high down payments, and why the mortgage term was not extended further to 20-30 years as is common in other countries.

The success of the system in boosting housing finance and the rate of house-building to well over 20% a year, confirmed the hypothesis that savers and borrowers would respond positively to incentives, and that private builders would likewise respond positively to increased profits from increased real demand for the finished product. Urban unemployment fell, and GDP growth doubled to 7%.

This was partly due to the contemporaneous increase in non-traditional exports which also responded positively to the incentive of a new "crawling-peg" exchange rate adjusted regularly in line with inflation to avoid overvaluation. The record also showed, however, that there was no necessary conflict between growth of urban house-building and growth of urban industry. Indeed the record suggested that they are complementary so long as the two sectors are assured of an increase in real demand (foreign demand in the case of exports) to which increased supply can respond without the fear of bankruptcy from a fall in price faster than the fall in costs that can usually accompany an increase in physical scale.

Unfortunately, again as mentioned above, the system's dynamism was diluted over time by a variety of modifications (called "reforms") that can be explained in two main ways. First there were the politically inspired complaints by the vested interests of borrowers – usually the relatively rich – who suffered from money illusion when their outstanding mortgage debts were adjusted in line with inflation. This was normally at a rate below the rise in nominal incomes that accompanied the rise in real per capita GDP, but they complained that they were being exploited by savers, many of whom were small savers much poorer than the borrowers. Secondly there were those who blamed the system for being inflationary when in fact the opposite was the case. The system adjusted only to past, recorded rates of inflation, not to future expectations.

These changes consequently took two main forms. First the index base for adjusting the system's assets and liabilities was changed so it progressively fell below the actual rate of inflation, thus harming savers and benefiting borrowers. Secondly, the CAVs' savings deposits were treated as inflationary money balances and subjected to increased reserve requirements by the central bank. The result was a decline in saving.

A further modification was that the private CAVs were increasingly subject to regulations as to the proportion of their assets that had to be for smaller mortgages on lower-cost housing for poorer, higher-risk borrowers. Just as the 1977 US Community Reinvestment Act obliged banks to increase the share of loans going to sub-prime properties and thereby increased their risks and contributed to the global crisis of 2008-11, so similar regulations on the CAVs reduced their profitability and dynamism and even led to the bankruptcy of some corporations in the aftermath of a major recession in 1998-2002. The remaining CAVs were then also allowed to diversify their loan portfolio away from mortgages. They could also offer fixed-rate mortgages on non-indexed terms, and as inflation fell consistently to single-digit figures for the first time in decades most new loans were on these terms. However, the banks insisted that for low-income borrowers their smaller mortgages would continue to be on the index-linked basis which still involved lower monthly instalments at early stages of the loans.

3.2 A continuing and growing housing deficit. So, for whom should housing be built?

The result of this mixed history since the early 1970s is that although the absolute number of good-quality middle-class housing (mainly in multifamily medium- and high-rise apartments on high-price land in favourable city locations) has greatly increased, and has transformed the

appearance of Colombia's cities, this type of housing has not kept pace with the even more rapid growth of new family units in the burgeoning cities. The result is growth in the absolute number and percentage of families living in inadequate, overcrowded accommodation on poorly serviced, low-priced land – or on higher-priced land but even more densely packed in, as the only way to keep down the per capita rents.[17]

In face of this growing deficit, the government has been pressured into an increased reliance on direct approaches to the housing crisis. That is to say, on direct subsidies on the rents and mortgages of poor families, largely administered by the state-run Instituto de Credito Territorial (ICT), whose name was changed in 1991 to the Instituto Nacional de Vivienda de Interes Social y Reforma Urbana, INURBE when it was given wider responsibilities to "adjudicate subsidies to low-income families "for the improvement, construction or acquisition of *vivienda de interes social* [social housing]".

Subsidies of course place a strain on an already strained national budget, and put pressure on the central bank to monetise fiscal deficits. In this way demand for a large part of the housing stock is not expanded via real effective demand from savings but rather through an inflationary monetary demand. By helping to stoke inflation, this contributes to the discrimination against long-term mortgage finance on affordable terms (absent a determinedly protected index-linked system), as explained above. Paradoxically, if subsidies do increase inflation, it is moot whether they would actually yield a *net* increase in the housing stock. If, on the other hand, subsidies are paid for out of general taxation *(as opposed to reliance on Georgist policies that obtain land value revenues)*, this potentially involves disincentives to work and enterprise and/or the displacement of other public expenditures that may adversely affect economic growth, hence lower real demand for improved housing for all.

After allowing for the effect of subsidies on rents and mortgages or on disposable incomes, the direct approach to the reduction of the housing deficit asks how housing can be matched to what people can afford, and building accordingly. But, almost by definition, most people in developing countries, including Colombia (*average* PPP income $8,500 per head in 2008) and China ($6,020), have incomes that are far too low to cover the building costs of anything except extremely basic shelter. The proportion of the population living on less than US$2 a day ($730 a year, or perhaps double that in PPP terms) was recently estimated at 26% for Colombia and 36% for China (Population Reference Bureau 2010). The annual PPP family income of these groups would be perhaps $6,000 for a 4-person family in Colombia and $4,500 for a 3-person family in China. If we assume that 33% is the maximum proportion of family income that can reasonably be devoted to house rents or debt servicing, this gives for these groups an annual budget of a mere $2,000 for Colombia and $1,500 for China. If these figures are capitalised at 5%, this would allow an expenditure of $40,000 and $30,000 for new housing units for these 4 or 3 person families in Colombia and China respectively.

With such low budgets available to so many low-income families, massive subsidies would be required to deal with the housing deficit if it were tackled by building anything other than new, poorly located slums for these people. In reality, in Colombia as in all developing countries there is a constraint on the size of the national budget that can be allocated for housing subsidies. As with education and health, there is clearly a case for subsidising the housing needs of the very poor. However, unlike in the case of education and health services that must be produced directly and continuously to serve the need, with housing there is a potentially

[17] According to the Population Reference Bureau (2010), the urban population in Colombia had risen to 75% by 2005 and the percentage living in slums was estimated at 18% (more than six million people). Most of the 25% living in rural areas (11 million people) also lived in poorly serviced sub-standard housing. For China the figures were 195 million people living in urban slums (38% of the urban population which in turn was 45% of the total population). As with Colombia, a large percentage of the Chinese rural poor have very sub-standard housing.

more effective *indirect* way to meet the needs of the poor. That is because housing, if well built, is a very durable good.

Consider an analogy with the automobile industry. Manufacturers do not build cars for the poor; they build them for the people who can afford the price that covers their high costs of production. These new cars are added to the total stock of new and second-hand cars, and purchasers of new cars will sell their old ones on the second-hand market to less wealthy individuals (who in turn sell *their* old cars) at lower prices depending on age and condition. In this way it is possible to buy perfectly serviceable cars that are, say, 10 years old, for as little as $2,000 (or even less) toward the bottom of this filtering-down (or upward escalation) process. At these prices even some very poor people can manage to afford quite good cars. However, it would be impossible to build a new car for anything like $2,000.

Likewise, in the housing market there is a huge stock of housing of different ages and conditions. One difference is that conventionally built housing is even more durable than cars and, with regular maintenance, can last many decades. The greater the effort put into ensuring that new quality homes are built for those who can afford them (and into maximising the number who are able to afford them with appropriate mortgage repayment schedules), the more dynamic and non-inflationary can be the annual rate of growth of the construction sector. There would then be less need for subsidies; or a given budget for subsidies would be able to stretch further. Clearly, subsidy programmes (such as the ICT programmes in Colombia) cannot on their own be expected to be nearly as dynamic as a programme that includes middle-income housing that is self-financing because fully geared to effective demand.

The other key point is that if newly built houses are then also of a quality that is at least as good as the average of the existing stock, and at least match the number of new family units being formed at the same time, then there would be an upgrading of the quality of the stock and/or rooms available for the poorest families, *and their price would be lowered.* Furthermore, this price would be below the cost of building equivalent new accommodation and space for those at the bottom of the ladder. These would include families recently arrived from rural areas. They in turn would have released their rural homes (or space in those homes) for those remaining behind. The escalation or filtration process can have deep benign ramifications.

However, this result depends crucially on the volume of new good quality building matching population growth in its most economic locations, and unfortunately this has not been happening. For example, between 1996 and 2008 the average annual number of new houses financed by the formal financial system was only 42,453, whereas the average growth of the urban population over this period exceed 500,000 person, or around 100,000 households if the average household had five persons.[18]

3.3. Urbanisation and land values

This brings us to consider further not only the efficiency gains from more rapid urbanisation, but also to the question of a more equitable distribution of those gains. On the side of efficiency, we have already stressed the importance of greater mobility of labour and capital to where their real returns are greatest. So long as disguisedly unemployed rural labour can find more productive work in the cities, the country's GDP is increased and resources more fully employed.

If the growth rate of the formal construction sector can be boosted by more fully exploiting the potential to convert *latent* demand for middle-income housing into dynamic *effective* demand

[18] Sources: Departamento Nacional de Estadistica (DANE), for data on new houses financed: (http://www.dane.gov.co/daneweb_V09/index.php?option=com_content&view=article&id=87&Itemid=57); and Population Reference Bureau (2010) for data on urban population growth.

along lines reviewed above, then this would create many more formal sector jobs with higher incomes than migrants can obtain on what might be called a do-it-yourself, Robinson Crusoe-style of unlicensed, informal construction work. Higher wages in the formal sector could then finance better housing than that constructed in *barrios de invasion.* It would also increase reciprocal demand for other goods and services (including, but not only, the industrial and service sector inputs that are purchased by and then assembled by the construction sector itself), and be a potentially powerful motor of overall growth. The increased scale of the market would generally enhance gains from specialisation and urban agglomeration economies. All of this also has a symbiotic relationship with the growth of exports up a dynamic "ladder of comparative advantage" as resource endowments and relative factor prices alter.

So from the point of view of increased employment and higher wages, urbanisation improves the distribution of incomes because it helps to make labour relatively more scarce. In Colombia where the rural-urban migration that absorbs the pool of surplus rural labour has already proceeded much further than in China, upward pressure on wages has been stronger than in China, but this may now be changing as China (with its relatively slower overall population growth) powers ahead economically at a faster pace than in Colombia. At the same time, this very process of demographic shift to the cities comes up against a fixed supply of land. The pressure of demand for land from increased population, incomes and economic activity, all of which requires space in which to live and do business, inexorably drives up the price.

Normally, a rise in price above the cost of production elicits an increased supply that tends to reverse the price and bring it back in line with costs. The land market, however, is different. First, the overall supply cannot be increased when demand increases. The supply can only be transferred from one person or one use to another. Second, land *qua* land does not have any *resource* (labour and capital) costs of production. It is "the free gift of Nature" (the classical economist David Ricardo's famous phrase). Thus, when demand increases its (resource) cost of production does not increase. However, it does have *opportunity costs*, so that one use of the same piece of land displaces other uses, and this is one reason why land commands a price. The other reason is that some plots are more desirable than others because of intrinsic differences in fertility (important in the case of agricultural land or mines) or surrounding amenities (infrastructure of all kinds). This influences the strength of demand for one site relative to another. Then, for the buyer or renter of land the price is a cost. For society the price is only a transfer payment.

Society, however, rather than the individual owner of a particular site, has built and paid for the infrastructure that makes the land of a city valuable (over and above its natural features and location relative to climate, natural waterways etc.). The individual owner pays for the buildings and improvements on the particular site, but these have only a trivial effect by themselves on the value of the land on which they sit.

This brief excursion into classical land economics is intended merely to highlight one of the most powerful forces acting against what would otherwise tend to be the equalising forces of competition and mobility – to the extent that these are allowed free play – during the process of development. Whereas competition and mobility promote an equalisation of wages and returns on saving and investment in man-made capital (buildings and equipment), no such forces operate in the market for land. Land is both fixed and immobile. Competition for its services does not drive its price down to its (zero) direct and indirect labour costs of production. Pure scarcity relative to demand determines its price.

The socially efficient use of land requires that it goes to those who can obtain the highest social value from the labour and capital applied to it. Price then performs a socially useful rationing function. But insofar as the overall value of land is a reflection of Nature's bounty or the collectively provided civic amenities and infrastructure and purchasing power of the community, its value is a community value. As such there is a powerful ethical as well as

economic case for ensuring that increases in land values consequent on the growth of national economic activity and population growth be captured by the community as state revenue instead of relying so much on the taxation of work and productive enterprise. Nowhere is this more germane than in rapidly urbanising developing countries such as Colombia and China. It is also highly germane to Singapore (reviewed below) where, even though it has been defined as an almost completely urbanised country for the best part of a century, rapid economic growth continues to put strong upward pressure on land values.

In Colombia "valorization taxes" have been imposed, on a piecemeal basis, to capture the increase in value of lands surrounding major public works such as road widening schemes where clear localised enhancements could be identified and where political obstacles could be overcome. However, even in the case of the recent major investment in "TransMilenio" – a rapid bus transit system for Bogota that greatly reduced travel times along its routes – it has been hard to disentangle the increases in land values associated with this one project from the multiple contemporaneous influences of new and old economic activity (Rodriguez and Mojica, 2008). Thus most of the windfall land value increments have remained in private hands, except insofar as the city authorities already owned some of the land needed for such projects or could acquire it at pre-development values before auctioning it to prospective private developers after granting planning permission for developments stimulated by the new publicly provided infrastructure. (This was common practice in Singapore using powers under its Land Acquisition Acts; see below).

It is well-known that this process of granting official permissions to convert land from one use to new, much higher economic uses that were previously prohibited or uneconomic is open to much abuse. In Colombia, as in China today, permission to convert agricultural land to urban uses can release huge repressed land value and yield major windfall gains to owners if left untaxed. Stories abound of cases of corruption that these windfall gains can induce. In China, peasants' smallholdings can be subject to compulsory purchase orders at their assessed value as agricultural land. This prevents the owners from obtaining windfall gains, and a case can be made for this if the windfalls are instead used to finance projects that benefit the wider community more equally. However, this is not achieved if local officials then sell the land to private developers at a price below its much higher value in urban use, after pocketing bribes. The community is the loser. As Henderson (2009: 22-23), for example, suggests, the more transparent auctioning of leases would help to reduce corruption. However, these dramatic examples of more-or-less overnight windfall gains should not hide the less dramatic but far more widespread steady rise in the value of land throughout existing urban space in the face of ever-increasing demand. Regular revaluations of properties for local property tax purposes (preferably with a distinction drawn between value of buildings and value of land, with higher rates imposed on the latter than the former) would go a long way to redistributing community-created values from the fortunate few private beneficiaries to the community as a whole.

Rising land values are both the consequence of urban growth (varying with the way in which infrastructure and amenities are concentrated) and of the way that land is rationed to the highest bidders. Naturally the rich can afford to live in the most desirable, exclusive neighbourhoods. The poor are forced to cheaper, remoter and less well-serviced lands, or live on more expensive land but in densely populated overcrowded conditions. In both cases the tendency is toward an undesirable degree of social segregation that is another justification for government intervention in the play of the land market. In Colombia we have seen that subsidising of the rents and mortgages of the poor has played an important, albeit subsidiary role in the provision of social housing, enabling the poor to live in better conditions and richer neighbourhoods than would otherwise have been possible. Ideally, the funds for this social goal would be derived in much greater degree from the public capture of land value increments (*"participación de plusvalía"* is the term for an instrument recently introduced in Colombia for the capture of up to 50% of land values created by public actions: see Patricia Acosta, 2008) than from the taxation of productive enterprise.

3.4. Urban design

The typical pattern of urban growth in Colombia has largely driven and been driven by market-determined land values. City design and its pattern of expansion has also of course been influenced by the interventions of national and city planners in zoning and deciding on the location of infrastructure and public housing. The latter projects, however, have tended to follow and reinforce rather than consciously modify market-driven land values. But some interesting attempts to buck the market trends have been made. Lauchlin Currie, as adviser to the Bogota and national planning departments over many years has again played a prominent role here. In a 1967 study for the then mayor of Bogota, Virgilio Barco (later President of Colombia), he proposed a multi-centred alternative to further development of a mono-centred city with dispersion that followed the existing lines to the north and west. These ideas were incorporated into the 1972 national plan by President Misael Pastrana as a "cities-within-cities" approach to the future growth of Bogota and other major cities, and, as mentioned above, Currie's subsequent book (Currie 1976) was the centrepiece of the 1976 United Nations Habitat conference in Vancouver.

The idea, strongly influenced by Singapore, Paris and Moscow was to try to minimise the dominance of the private car and to minimise transport requirements by creating within each metropolitan area, separate distinct centres which would be as self-contained as possible, with an appropriate mix of residences, workplaces and social amenities serving mainly the residents of each centre, and making each centre as walkable, hence as densely occupied as possible, yet with ample open spaces partly by minimising road space and the need for private cars (see Sandilands 1990, chapter 11 for details). The new city of El Salitre near to but distinct from the traditional centre of Bogota was an example of the partial influence of these ideas. It was an identifiably distinct centre with a concentration of government offices and cross-subsidisation of residents that attempted to maximise the number of government workers who also lived in this new city-within-the city. By locating these new cities within the wider metropolitan area the benefits of agglomeration economies were not lost. This was in contrast to policies that sought to establish small new cities beyond the ambit of an existing metropolis. The idea was to tame the metropolitan design so as to make it more efficient and more liveable, rather than to curb its growth and sacrifice its natural advantages.

4. Comparisons with Singapore

A partial precedent for the model of metropolitan development that Currie had in mind was to be found in Singapore where he made two fact-finding visits, in 1973 and 1984, accompanied by senior Colombian planning officials. During the decade preceding his 1973 visit, Singapore had rehoused one-third of its entire population in a series of large, relatively compact new towns. By the time of his second visit in 1984 (on a trip that followed an official visit to Beijing, Hong Kong and the booming new city of Shenzhen), three-quarters of Singapore's population had been rehoused and her new towns were increasingly self-contained cities-within-the city.

Singapore's new housing developments were almost exclusively high-rise apartment blocks of ten to twenty stories (with much higher blocks accommodating, amongst others, many of the rich expatriate community working in the much sought-after downtown financial and commercial districts where extremely high land values rationally dictated even higher densities for both residential and commercial activities). An unusually high proportion of national income was diverted to building, yet the country had one of the fastest growth rates in the world. The proportional share of building grew progressively over the years – a reflection of the fact that it was a leading sector with a growth rate significantly higher than the rest of the economy, thus levering up the overall rate of economic growth, alongside a vibrant export-oriented manufacturing sector that was its complementary motor of growth. The coexistence of exceptionally rapid growth of housing and exports belied the fears of those who thought that

only industrial sector investment could be a productive leading sector while believing that investment in housing would represent an unproductive drag on growth.

Singapore has not had to face the challenge of massive potential migration to its cities resulting from the displacement of labour by new agricultural technology coupled with low elasticity of demand, as most developing countries such as Colombia and China have faced. Singapore has been a city state for most of its modern history. However, as Southeast Asia's leading entrepôt city, a very large number of its citizens were until fairly recently engaged in very low-productivity, low paid, labour-intensive work loading and unloading ships in the overcrowded harbour district, in slum conditions. By the time of self-governance in 1959 and independence in 1965, Singapore's leaders realised that these low-productivity entrepôt activities (whose workers represented challenges and opportunities similar to those posed by the mass of disguisedly unemployed rural workers in most underdeveloped countries) offered only limited scope for a rapid acceleration of economic growth. The present report focuses on the period of major transformation, 1960-90, when Singapore was facing similar challenges to those faced by China's major cities today.

Singapore's manufacturing programme of the early 1960s demanded that new industrial areas be developed, with extensive new factory and office building. But it also required new housing estates and towns in which workers could live in less overcrowded conditions and closer to the new industries. Efforts were made to reserve 20-25 percent of the land in the new towns for industrial purposes, consistent with a cities-within-the-city design, but this has not been entirely successful since the mix of jobs and residences has never been adequate and heavy commuting continues. However, this has diminished over the years, particularly after the early 1980s when the provision of housing near to the huge Jurong industrial estate, built on reclaimed swampland, was massively increased and the transportation system improved. The Economic Development Board (1961) and the Jurong Town Council (1968) were established to build advance factories on cleared sites (mainly in Jurong but also in other parts of the island), and to let these on attractive terms to foreign industrialists.

4.1 The Housing Development Board

But the first and most important statutory body to be established, in February 1960, was the Housing Development Board (HDB), because massive investment in public housing was considered not a liability but a prerequisite to the overall development programme being planned. The HDB was given wide-ranging powers to acquire land and create self-contained new towns to house large numbers in high-rise apartments with related public buildings and services. Until 1974, when an independent Urban Renewal Authority (URA) was established, the HDB was also responsible for slum clearance and development of prime sites in the central business district (CBD).

The HDB replaced the old Singapore Improvement Trust (SIT) that had been administered by the British Colonial Government between 1927-59. During that period the SIT had built only 27,000 public housing units and these housed only 9 percent of Singapore's population. By contrast, between 1960-90 the HDB used its extensive powers and resources to complete more than 650,000 units (plus a substantial volume of related facilities), and rehoused more than 85% of the population (Sandilands 1992).

Before 1960 the rate of new housing units constructed, mainly in the private sector, was falling far short of new family formations, with the result that the already acute problem of overcrowding was steadily worsening. The HDB initiated its activities with a five-year crash programme, 1960-65, when completion of public housing units increased from around 1,000 units a year to an average of more than 10,000 a year (with a further 3,000 a year in the private sector for most of the period up to 1980, and about 5,000 a year after that). During 1960-65 population pressure was growing by about 50,000 persons a year. This fell to less than 40,000

in the late 1960s and 1970s, yet the public housing programme accelerated to over 13,000 units a year between 1965-70; to nearly 23,000 a year between 1971-75; to 27,500 a year between 1976-80; and to more than 40,000 a year between 1981-85 at a time when annual population growth increased to around 50,000 a year following a reversal of the earlier policy of population control. After 1985 there was some decline in public housing, with greater emphasis on renovation and remodelling. At the same time there was a big increase in the completion of higher-quality and larger private-sector homes, at nearly 5,000 a year.

Thus, during this 30-year period the growth of the overall housing stock far outpaced the growth of the population, permitting a considerable amelioration of the overcrowding problem and progressive improvement in the quality of the stock.

The initial emphasis by the HDB was on building small, rather basic apartments in high-rise blocks for rent to low-income families which, despite the low building costs (arising from scale economies), involved a heavy subsidy element. Rents were based on the premise that a family should not have to devote more than 20% of its budget to housing. But rich tenants paid the same rents as poor. *Such a policy was clearly not feasible on a large scale,* so the HDB had to establish strict eligibility rules in allocating apartments for rent and these rules were progressively tightened over the years (Sandilands 1992; Yuen 2007). Beginning in 1964 after the most acute housing needs had been met, the HDB vigorously encouraged people to buy rather than rent. Thus, at the same time as the eligibility criteria for rental units were tightened, the eligibility criteria and terms for the sale of apartments were progressively relaxed. *In this way there was always adequate real demand to match the expanding supply,* and fiscal and monetary policy could almost always be kept under tight control.[19]

The thinking behind this "Home Ownership for the People" programme was that ownership gives Singaporean citizens a personal stake in the new nation and fosters a sense of nationhood. It can also be an effective way to increase the purposeful incentive to save (or, in Singapore's case, to increase the willingness to accept a very high rate of *compulsory* saving). And, critically, it reduces the amount of state subsidy that extensive application of a low-rent policy would imply.

4.2 The Role of the Central Provident Fund (CPF) in the Financing of Public Housing

In fact the ownership programme experienced a slow start. This was due (i) to the relatively small number of units offered for sale in the face of continued heavy demand for rental units; (ii) to the difficulty people had in raising the 20% down-payment requirement; and most importantly, (iii) to the relative scarcity of funds available for mortgage loans. A tremendous boost to the home ownership programme came in 1968 when applicants were permitted to utilise their accumulated pension fund contributions, under the Central Provident Fund (CPF) system, for both down-payments and monthly mortgage repayments for their HDB flats.[20]

The CPF was started in 1955 with employers and employees each contributing 5% of wages to the fund (but subject to a ceiling). By 1960 net contributions plus interest amounted to about 1.4% of GDP, almost all of which was invested in government securities. This aided the financing of development programmes including those of the HDB. Total expenditures on new housing in 1960 came to 2.9% of GDP, or 1.9% in value-added terms. (The value-added contribution of the construction sector as a whole came to around 3.4% of GDP.)[21]

[19] Despite one of the fastest rates of real economic growth in the world, 1960-2011, Singapore has also had one of the lowest average inflation rates.
[20] The mortgage repayment term was progressively extended from a maximum of 15 years before 1970, to 20 years in 1970 and 25 years in 1986, thus increasing affordability and/or permitting the purchase of increasingly spacious homes on increasingly scarce, hence high-priced, land.
[21] Calculations in this section are mainly based on tables constructed by Sandilands (1992).

Rapid expansion of incomes and employment after 1960 boosted CPF savings but it was not until CPF rates were raised, in a series of steps beginning in 1968, that the increase in CPF savings began to outpace the HDB building programme. The rates for employers and employees were each raised to 8% in 1970. In that year CPF revenues exceeded the total of all public-sector building projects, including factories, offices, schools, and hospitals as well as housing. The HDB accounted for 71% of those public investments. Over the next 14 years CPF contribution rates were increased until they *each* reached a remarkable peak of 25% of gross wages (subject to a ceiling).[22] These high CPF rates go a long way to explaining the remarkable rise in the overall national savings rate that peaked at 45% of GDP in 1990. In view of the country's usual fiscal conservatism, with the public-sector budget normally in surplus, CPF revenues explain both Singapore's relatively very low taxes and why the country could accumulate one of the largest foreign exchange reserves in the world, as a proportion of GDP, without inflationary consequences.

Thus the CPF has performed two key roles in Singapore's massive housing and urban redevelopment programmes, one direct and the other indirect.

The CPF's *indirect* role lies in the forced capture of personal savings which are indirectly channelled to the HDB, Urban Renewal Authority (URA), Jurong Town Council (JTC) and other statutory boards through the government's Development Fund (instead of this coming out of general taxation). The HDB has usually obtained the lion's share of these funds, loaned to it at rates of interest below market rates, though normally at a rate that exceeds the rate of inflation. Borrowers are charged only a slightly higher rate, and the government gives the HDB a subsidy to cover any cash deficit on its annual operating budget.

The CPF's *direct* role is in permitting its members to use their CPF balances to buy their own homes. Typically the down payment is made through the use of accumulated balances, while mortgage debt servicing is through the use of current contributions. Since 1981 members were permitted to use their balances to purchase private as well as HDB housing.[23] The acquisition of real estate wealth is seen as partly replacing the need for retirement pensions.

By the late 1960s the share of the public and private construction sector as a whole in GDP (that is, in value added in the assembly of construction materials) had risen to nearly 10%, with gross expenditures (inclusive of bought-in inputs) between 15-20% of GDP, rising to 25-30% in some later years. Gross expenditures on residential construction alone were around 8 or 9% of GDP in the late 1960s and for most of the next 20 years. Thus not only was the rate of growth of construction above average (with housing a major component) but it became a significant proportion of GDP, thus fulfilling its role as a significant leading sector or motor of growth, apparently without in any way preventing the growth of an increasingly diversified export sector from fulfilling a similar (indeed complementary) role. The Singapore example indicates a strong symbiotic relationship between the two.

4.3 Housing, land ownership, and the distribution of income

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[22] This means, for example, that if the gross wage (before CPF contributions) is S$1,000 a month, the employer's wage bill is S$1,250 and the employee's CPF account is credited with S$500 in total. This is 40% of the wage of S$1,250 inclusive of the employer's contribution.

It is interesting that when in 1985-86 the country faced a recession due to a squeeze on exports (resulting from a government-mandated high wage policy and a strongly appreciating exchange rate), the CPF rate was sharply cut from 25% to 15% for employers only. This quickly restored the country's competitiveness and growth recovered.

[23] Not all of the funds can be used for purchase of housing. Some is retained in "Medisave" and "Edusave" accounts to pay for a proportion of educational and medical expenses. Withdrawals have also been permitted for the purchase of specified gilt-edged bonds.

We mentioned above the way in which a rapid growth of population and economic activity in the cities of developing countries increases the demand for the fixed supply of space, especially in those locations where socially provided amenities are greatest. This puts strong upward pressure on the value of land in those areas, permitting great fortunes to be made by private individuals who have made little or no corresponding contribution to the creation of wealth. Land values are transfer payments that divert part of the nation's output from producers to the owners of land.

Fortunately for its citizens, Singapore inherited large areas of public land from the British in 1959, but the Land Acquisition Act of 1966 and its subsequent amendments gave the government greatly increased powers of compulsory purchase, with compensation reflecting, at best, pre-existing use values only. By 1990, due largely to HDB land purchases (as well as substantial land reclamation by public bodies), the state was owner of around 75% of all of the land of the island.

The provisions of the Land Acquisition Act greatly reduced the HDB's financial requirements, and this is reflected in the relatively low selling prices of HDB flats, thereby spreading the social land value increases (often referred to as "unearned increments" in the literature) to a wider public. It should be noted, however, that purchasers do not acquire explicit private property rights in land, over which the HDB retains ownership and control, and which has been reported to have an average value of around 50% of the market price of housing (Tyabji and Lin 1989). This is one reason why prices of HDB flats continue to diverge from those of similar units in the private sector, and the price differential is therefore only partly due to explicit cash subsidies (which are a very small proportion of total HDB operations).[24] Also, unlike private sector housing, HDB flats are sold only on 99-year leases, not freehold. However, once families have bought their flats at a subsidised price, they benefit from future increases in the value of the land on which their flats stand, and they can benefit from these unearned increments when and if they come to sell in the future, except to the degree that annual property taxes, with regular updating of values, are imposed on owners.

Of equal importance for the absolute increase in the incomes of the poorest groups in society – even if not for the relative improvement in their incomes – has been the sustained dynamism of the economy, due in no small part to the sustained dynamism of the housing sector. For this has ensured more or less full employment throughout the history of Singapore's independence, and the country's very high (forced and voluntary) private and business savings have been invested productively in so much physical and human capital and technology as to ensure a steady rise in real wages even for the relatively unskilled. The reason why the Gini coefficient of relative inequality has improved less rapidly must, however, be due in no small measure to the way in which overall economic success is still largely reflected in the retention of spectacularly high land values in private hands. More could be done to ensure that even more of these pass to the government (and thence to the people as a whole in public benefits and/or lower taxes on earned incomes) than they do already. This would also help to reduce speculative holdings of land that have often been a significant cause of boom-and-bust land and business cycles.

One final comment regarding the sharing of land values: in an effort to minimise the amount of land given over to the private car, as well as to reduce the problem of congested roads that would hamper the efficient conduct of business, the government introduced draconian

[24] In fiscal 1985/86 the HDB introduced a new accounting convention in which the difference between the selling price of HDB flats and their market cost, inclusive of land, is recorded as a government subsidy. This made it appear that buyers of HDB flats were getting a subsidy of a third to a half of the purchase price, though given that ownership and control of land remains with the HDB, this may be an exaggeration.

restrictions on private car ownership in the early 1990s through the “certificate of entitlement” (COE) scheme. This involved the auctioning each month of licenses to purchase a new car, with the number of new licences issued determined by the government’s estimate of the increase in the carrying capacity of the island’s road network (roughly by 1% a year). This resulted in very big and growing excess demand for COEs that drove the price of cars to more than four times the world market price. This was effectively a way to sell or rent valuable land given over to roads) to richer Singaporeans so that they, rather than those without cars, paid for the roads, but also subsidised the improvement of public transport for all. (In addition the road space in the central business district was also subject to very high daily charges.)

4.4 The construction sector and exogenous shocks

Singapore is one of the most open economies in the world and is therefore peculiarly subject to global economic crises that adversely affect its ability to sell to the world, generating recession, notably during the 1997 Asian crisis and the current 2007-11 crisis. Occasionally recessions have had home-grown causes, notably in 1985-86. This resulted from a combination of (i) artificially high wage increases mandated by the Singapore Wages Council in their misguided view that this would stimulate a faster rate of labour-saving productivity increases but which, coupled with an informal exchange rate peg to the US dollar that was experiencing an unusually strong appreciation at that time, instead led to a strongly over-valued real exchange rate that jeopardised Singapore’s export competitiveness, together with (ii) a speculative frenzy of new office and hotel building led to over-capacity that could not be sold at prices that covered the private sector’s building and land costs.

These two causes were inter-related in that the loss of export markets led to an exodus of the foreign workers and business men and women who had been sustaining the demand for land and accommodation of all kinds, including hotels, private sector housing, and office space. The leading sectors of exports and construction in those years both led down instead of up. Fortunately, the government responded quickly by cutting the artificial (hence unsupportable) increases in wage costs via a 10 percentage point cut in employers’ CPF contributions (as mentioned above), and there was a rapid recovery both in exports and in the related demand for space and building.

In other years of crisis for the trade sector, Singapore has been able to rely on its second leading sector of construction to compensate.

5. Lessons for China

The above accounts of Colombian and Singaporean experiences offer positive and negative lessons for China in respect of the role of the construction sector in general and residential construction in particular in boosting the self-sustainable rate of economic growth. We conclude with a brief list.

1. The experience of Colombia and Singapore both demonstrate the immense importance of a government-assisted boost to the residential housing sector and related infrastructure and services in the acceleration of their overall economic development. This is vital for the geographical and occupational mobility of the work force so that labour productivity can be maximised and the distribution of income improved.

2. Housing and related infrastructure rely much more heavily than other sectors on long-term finance out of external funds. They are therefore much more heavily affected by variations in the rate of interest than is shorter-term finance for working capital (much of which anyway comes from internal ploughback of business profits and depreciation accounts) or consumer credit (which generally has a lower social value). This is because nominal interest rate tends to vary with inflation, but often not immediately in tandem with

it. This then adversely affects the incentive to save if real rates fall, while also adversely affecting the demand for long-term finance of the higher "front-end loading" problem for borrowers. It therefore merits special protection.

3. It is vital that the discrimination against long-term finance be offset by measures that both encourage saving and ensure that housing finance gets a share of total savings that reflects the relatively high private and social return on private and public housing. Both the voluntary Colombian CAV and the compulsory Singaporean CPF systems – especially the latter – have done much to boost the supply of savings channelled to housing. China has copied the Singaporean CPF system (with its close links with the Housing Development Board) through its own national Housing Provident Fund (HPF) system introduced in 1994. However, the coverage is more limited and monthly employee and employer contributions to the Fund much more modest than in Singapore (see Lan Deng et al, 2011). These could be increased significantly as a non-inflationary additional source of funds, especially if its administration can be made as efficient as in Singapore.

4. The more that is done to boost voluntary and forced saving, the less the pressure on inflationary sources of funds. This message is particularly apt today, at a time when inflation has been accelerating in China (and is being partly suppressed via price controls rather than a tightening of monetary policy).

5. In view of the external social benefits of a well housed population and the desirability of a good social mix (reduction in social segregation) there is a case for subsidies, though budgetary constraints limit the role that subsidies can play in ensuring dynamic growth as compared to institutional reforms that boost non-inflationary private savings.

6. The provision of housing should be matched to real effective demand. The schedule of long-term mortgage repayments on good-quality new housing can be made more affordable if inflation and nominal interest rates are kept low or if index-linked finance can be introduced to overcome the front-end loading problem, and if mortgage amortisation terms can be lengthened.

7. China should avoid building new housing directly for the very poor because only by building extremely basic structures can the costs be covered by rents that the very poor can afford. Thus these programmes would require prohibitive subsidies and would do little to improve slum conditions on cheap (because poorly located) land.

8. The indirect approach to the solution to the most pressing housing conditions of the very poor is likely to be more successful. But this requires that China ensures that the number of conventionally built apartments with minimum space and quality standards is at least as great as the number of new family units being formed each year in its cities where the greatest opportunities for higher productivity employment lie. As Currie (1976:63) explained the potential benefits of the "escalation" or "filtering-down" process:

> Elements in the supply-demand problem become not the proportion of the population unable to afford new housing, but rather whether there are sufficient funds and physical resources on the one hand and sufficient demand on the other to result in a sufficient addition to the stock of housing to match the new households required each year so that all the *new* housing may be conventionally built in a modern construction sector, may be well located in relation to employment, and may be well serviced. This converts the problem into one of available funds and the terms on which apartments may be rented, and the growth of incomes and effective demand for apartments, and the question who receives and who pays the transfer payments arising from the rise in land values…
>
> …A secret of the success of Singapore of supplying conventionally built apartments for an increasing proportion of the population at astonishingly low percentages of their

income can be found in large-volume, low cost, high-density (which spreads land costs), modest initial sized apartments, rapidly rising incomes and finally some subsidy to the whole operation by central government. This combination has permitted not only slums to be replaced but also a steady upgrading in space and facility standards.

9. There should be explicit recognition that investment in housing is at least as productive as any other investment[25] if the potential real effective demand for it can be actualised via the mobilisation of real non-inflationary savings channelled toward that effective demand, supplemented by subsidies to poorer families to the extent affordable out of central and local municipal budgets.

10. The promotion of the construction sector complements industrialisation. If industrialisation hits a recession due to a downturn in the global economy or because of pressure to revalue the renmimbi, there are non-inflationary ways in which demand can be further reoriented toward housing and related infrastructure to compensate. This is especially feasible for a country like China in possession of huge foreign exchange reserves.

11. Urban design should foster increased density to economise on increasingly scarce, hence high-value land. This can be helped by tough measures to restrict the growth of private car ownership, with revenues raised from the taxation of car ownership used to subsidise better public transport.

12. Increased urbanisation everywhere goes hand-in-hand with rapidly rising urban land values. This is one of the main sources of increasingly unequal distribution of incomes and wealth. The socially created increases in these land values should be returned to the whole community via its recapture by the government on behalf of the community as a whole that has created these transfer payments. Governments should avoid the opposite scenario: capture of government at various levels, central and municipal, by the vested interests of a new landed aristocracy, including through bribery and corruption, as well as through leaders' poor understanding of the economic theory involved.

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[25] Contrary to Echeverry [2002] who is discussed in the appendix; or Gao [2010:5] who notes that housing in China has been regarded as a "consumption item", and contrasts the "productive sector in state investment" with the "dead-end nature of housing expenditure."

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Appendix

I am appending my review[26] of the following book because it may reinforce my explanation why housing and urban infrastructure deserves special protection in a strategy to accelerate overall development, and why it should not be regarded as "unproductive" compared to other investments in the economy.

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Juan Carlos Echeverry, *Las Claves del Futuro: Economía y Conflicto en Colombia*. (Keys to the Future: Economics and Conflict in Colombia.) Bogota: Editorial Oveja Negra, 2002, pp.xxii + 440.

This book represents the thought and experience of a prominent economist who directed Colombia's National Planning Department (DNP) during the crisis years of 1998-2002. Upon demitting office with the change of government in August 2002, Juan Carlos Echeverry assumed the post of Dean of the Faculty of Economics at the prestigious University of the Andes where he continues to exercise great influence on students and economic policy-makers. His book surveys the evolution of the Colombian economy over the past 30 years, with a focus on the last decade during which time Colombia embarked upon an ambitious programme of "apertura", or openness.

Echeverry notes that he was a member of the team that negotiated with the IMF, and was basically sympathetic to the "Washington consensus" that stressed "fiscal health" (smaller deficits), privatisation, financial liberalisation, central bank independence, and tax, pension, and labour-market reforms. He laments that the vicious and very costly "narco-guerrilla war" that Colombia has suffered during this period has greatly offset the benefits of allegedly sound economic policy, and has given liberalisation an undeserved bad name.

The appearance of *Las Claves del Futuro* (The Keys to the Future) in Colombia is very timely. It almost coincided with the publicity surrounding the celebration of the centenary of the birth of another economist who achieved great prominence as a teacher and practitioner in Colombia: Lauchlin Currie (1902-93). After a distinguished career at Harvard, the Federal Reserve Board, and in the White House as Franklin Roosevelt's economic adviser from 1939-45, Currie came to Colombia as head of a World Bank mission in 1949 (see Sandilands, 1990, and Laidler and Sandilands, 2002). He was invited to stay on as an adviser to successive governments for the next 40 years. Most notably he was the father of a unique index-linked housing finance system (known in Colombia by its Spanish acronym, UPAC, for "unit of constant purchasing power") which he stoutly defended from its birth in 1972 until his own death in December 1993.

Echeverry gives considerable space to an analysis of that innovative but highly controversial housing finance system. He notes that its main original aim was to make construction a "leading" sector that could permanently boost the overall economic growth rate (as explained in detail in Currie, 1974). In 2002 the system lay in ruins, the victim of countless debilitating modifications. Construction had for the past four years been leading the economy down instead of up. Many thousands had lost their jobs, both directly and as a result of the depressed state of the industries that supply the construction sector. Urban unemployment stood at 18 percent, with the official figure for urban underemployment standing at 33 percent. In other words, only half of the workforce was fully employed (rural underemployment was worse than the urban rate.)

[26] Published in *Journal of Economic Studies*, 30:2 (2003), pp.183-7

The two directors of the National Planning Department who implemented Currie's celebrated *Plan de las Cuatro Estrategias* (Plan of the Four Strategies) between 1971 and 1974 were Roberto Arenas and Luis Eduardo Rosas. At the Currie centenary in October 2002 both recalled the great impulse that UPAC had given to construction and to overall growth in the 1970s, together with full employment and improved distribution. Comparing the dynamism of the 1970s with the stagnation of today, Rosas remarked, in a newspaper tribute to Currie: "!Como nos hace de falta en estos momentos!" ("How we have need of him now!")

Echeverry concedes that in the 1970s and 1980s construction played a very positive role. It created jobs and was a contra-cyclical influence. But he claims that in the 1990s, with "apertura" (the policy of economic openness) and the great influx of external credits and drug money, construction became a pro-cyclical speculative activity that was bound to collapse, as collapse it did in 1998 – though he stressed that the problem was compounded by the fiscal strain of a worsening civil war. His main complaint is that construction is a sector that has been privileged and has diverted resources from traded goods. It also relies on unskilled workers whereas the future depends on skills and an allocation of resources more in tune with the market forces that Adam Smith emphasised. Let us rely on Smith, says Echeverry, not on protectionist "models of development" and privileged "leading sectors".

However, Currie's ideas were also heavily influenced by Smith. Currie's mentor at Harvard in the 1920s was Allyn Young, whose presidential address to the British Association in 1928 on "Increasing Returns and Economic Progress" (Young, 1928) has inspired modern development theory, to which Currie has been an interesting contributor (see, for example, Currie, 1997). Echeverry does not refer to this so-called endogenous growth theory, perhaps because of his profound scepticism of "models of development". But Young and Currie were inspired by the opening chapters of *The Wealth of Nations* where Smith emphasised that the key to increased productivity was specialization or the division of labour. And the division of labour in turn depended upon the size of the market, or upon real demand.

Today demand management is generally associated with Keynesian policies to tackle short-run business cycles around a secular trend. These cycles are closely associated with interruptions to the flow of monetary incomes and expenditures (or monetary demand). But Smith and Young focussed on competition, openness, and the mobility of labour to increase the underlying trend of real demand and market size (or what Smith also called "the power of exchanging"), hence specialization, hence productivity.

Young explained that in the modern economy specialization takes the form of new, more specialized firms and industries that compete against the old. They introduce new forms of organization and technology, but only as and when it pays to do so. The larger the market size, the greater the incentive to innovate. Currie extended this idea to show that the existing growth rate (of the overall market, or GDP) had a tendency to perpetuate itself. But in Colombia where resources were abundant but grossly malallocated and underutilized, and where labour mobility was very poor, growth fell far short of potential. This self-perpetuating (or endogenous) growth rate was a vicious circle that could best be broken by institutional measures to liberate the great potential supply.

This is where Currie's vision of construction's potential role goes rather further than Echeverry's. As a "leading sector" it is valuable not so much as a contra-cyclical, stabilizing force (though it could also serve that purpose). Rather, it could help Colombia (and other countries) to break free of her historically slow, endogenous growth path. It is a leading sector because (a) it is an important direct and indirect component of GDP, so its growth has a significant effect on overall growth; (b) it moves independently of movements in the rest of the economy, and can be moved exogenously through discretionary policies; (c) it plays a vital role in promoting labour mobility; and (d) it is a sector with enormous latent demand.

But in the past this latent demand had been severely repressed. Potential homeowners can usually only buy a home with the help of substantial mortgages. Thus effective demand required a rapidly expanding flow of credit on convenient terms. This was not available because chronic inflation discriminated against housing finance. High inflation requires high interest rates to attract savings. But for people borrowing large sums high interest rates impose a severe cash-flow problem in the short term (the so-called “front-end loading problem”). This curtails effective demand. By contrast, “constant value” savings and loans made it both more attractive to save and easier to borrow.

Echeverry is a stout opponent of inflationary finance. But in Colombia chronic inflation has been a reality for the past 50 years. Echeverry fails to highlight the main distortionary effects that inflation introduces. In practice some sectors suffer far greater harm than others. The disadvantaged sectors – mainly construction and exports - are not “privileged” when measures are introduced (such as UPAC and realistic exchange rate policies) that protect them from the distortions of inflation. Furthermore, conventional macroeconomic policies designed to squeeze inflation out of the system (through temporarily higher interest rates on government bonds) and to reduce the fiscal deficit (much of it due to depressed incomes) can also damage the housing sector by making it less attractive to place savings there.

Currie understood how to combine deflationary monetary and fiscal policies with policies to reactivate the real economy by redirecting incomes and expenditures toward leading sectors that rely not on the printing press but upon genuine savings. The great economist Harry G Johnson similarly distinguished between “expenditure-reducing” and “expenditure-switching” policies (Johnson, 1958). A blueprint for such a combination, with detailed quantitative estimates of the size of the required “compensatory” effect required of the leading sectors, was drawn up by Currie and Alvaro Montenegro (1984) as advice for the administration of President Belisario Betancur in the mid-1980s. The advice was not taken and the country went through a very bad bout of instability and capital flight.

The construction sector has another very important role ignored by Echeverry: it is an indispensable element in the labour mobility mechanism. This promotes not only faster growth but also better distribution. In Colombia there is still a great imbalance in the allocation of labour, notably between low-paying agriculture and high-paying urban activities. And in cities like Bogota there is urgent need for better balance between where people live and where they work, and for an improvement in the quality of the housing needed and/or demanded by all income groups.

Echeverry claims there is a conflict between investment in internationally traded goods and investment in housing. Yet in countries such as Singapore, noted for spectacular export growth, investment in housing has also been enormous, and far greater than in Colombia. Despite re-housing almost the entire population in the last 35 years its construction sector still booms. There has been no saturation of demand.

As people’s incomes have increased so Singaporeans have demanded better and better accommodation and related infrastructure. This has been aided by low inflation and large pension fund contributions that are released for housing finance at low rates of interest (but positive in real terms). Building is concentrated on well-built conventional high-rise blocks for the middle classes. As these families move into new homes lower-income families move into the ones they have vacated. This “filtration” or “escalation” process enables poorer families to enjoy far better accommodation than the type of subsidised “vivienda de interes social” (popular housing) that Colombia is desperately trying to provide today out of limited fiscal resources.

Housing and exports are complements, not substitutes. Both are capable of expanding on the basis of a stimulus to and redirection of real savings, rather than via inflationary finance or subsidies. Here are the real "keys to the future".

By contrast, Echeverry's overview of the Colombian economy and economic policies during the last 30 years focuses mainly on the structure and balance of the national budget and the rate of growth of money and credit. This is rather typical too of the focus of the international lending agencies when drawing up conditions for further foreign loans. There is much of value in this analysis. However, its key limitation is that it gives too little weight to the dynamic changes in the composition of real incomes and expenditures over time in developing countries like Colombia, and of the need to ensure that the country's abundant natural and human resources are allocated – and reallocated – accordingly. Herein the supreme importance of the mobility mechanism, and of the related role of a dynamic and well funded construction sector.

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