

REAL ESTATE RESEARCH REPORT - 7

*AFFORDABLE HOUSING IN TURKEY:
COUNTRY ASSESSMENT AND RECOMMENDATIONS*



GYODER
The Association of Real Estate Investment Companies

Affordable Housing in Turkey: Country Assessment and Recommendations

David A. Smith



Affordable Housing Institute

www.affordablehousinginstitute.org

Prepared for:

GYODER
The Association of Real Estate Investment Companies



This report was written by David A. Smith, Founder and President of the Affordable Housing Institute, with substantial assistance from:

Dr. Janaki Blum, Director of the Affordable Housing Institute

Didem Tuzum, Senior Research Associate

Motialepula Mmesi, Research Associate, AHI

Claudine Stuchell, Research Intern, AHI

Any errors are the authors'.

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Nispetiye Caddesi, Levent İş Merkezi, 6 / 2
34330 Levent - İstanbul
Phone: +90 (212) 282 53 65
Fax: +90 (212) 282 53 93

AUTHOR

David A. Smith

PREPARATION

Creative Yayıncılık ve Tanıtım Ltd. Şti.
Teşvikiye Caddesi, Sadun Apt. 105 / 6
34367 Teşvikiye - İstanbul
Phone: +90 (212) 227 61 52/53/54
Fax: +90 (212) 227 61 44

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Cem Turan Ofset
Litros Yolu, II. Matbaacılar Sitesi,
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Section I. Summary

For Turkey to be competitive with developed nations in Europe and the Americas, Turkey needs to improve its housing – total supply, housing quality, and housing affordability – which lag behind other sectors of the Turkish economy relative to these countries to which Turkey aspires.

Improving Turkish housing across the board will not only improve the Turkish economy broadly but also lead to an increase in overall Turkish household income and better quality of life, as people have more flexibility to buy or rent housing they need.

Turkey should emphasize urban development, because that is where the growth will be, and that is where demand is rising faster than supply.

Our principal action recommendations are:

- 1. Shift government from housing production into housing finance.** TOKI should not be a builder or developer, but a lender, financier, and bank, as are its counterparts in Mexico and Thailand.
- 2. Diversify TOKI*** from just the supply side (more houses) to **include also the demand side** (helping customers buy homes), as in Mexico's SHF, and the US GSEs (Fannie Mae and Freddie Mac). Use the proceeds from securitizing TOKI's loan portfolio as the equity base for reorienting TOKI into a housing bank.
- 3. Catalyze private mortgage banks** by creating new financial products that complement the market.
- 4. Allow municipal government to obtain nationally owned land** for urban development and regeneration.
- 5. Create a national gecekondü** transformation pilot program** built around (a) demolition-and-rebuilding with formal housing, (b) favorable loans to transform and earthquake-reinforce housing.

* TOKI: Housing Development Administration of Turkey

** Gecekondü Definition: Gecekondü is a Turkish word meaning a house put up quickly without proper permissions. In common usage, it refers to the low cost apartment buildings or houses that were constructed in a very short time by people migrating from rural areas to the outskirts of the large cities.

- 6. Develop consumer earthquake-reinforcement loans** for sale through mortgage banks. Use them as part of broad-based new policies to improve existing informal neighborhoods.
- 7. Create a rental housing association model** for long-term affordable apartments.



Section 2. The Turkish housing financial environment today

Turkey's economy is growing and its standard of living is rapidly rising. With a growing economy comes rapid urbanization and increasing housing demand, but housing production, finance, and formalization are lagging behind the need.

A. Urbanization and demand

Turkey's current population of over 70,500,000¹ people is growing at about 1.5% annually, projected to grow to 81,650,000 by 2015². Most of this growth is happening in cities, which are growing at 2.0% to 2.5% annually, with the excess growth coming through rural immigration³. As a result Turkey, which was already urbanized by 2000 (65% urbanized), is today 70% urbanized⁴ and projected to be 75% urbanized by 2015, when roughly 61,250,000 families will be urban⁵, an increase of perhaps 3,600,000 new urban households, requiring a similar number of urban housing units⁶.

Naturally, the largest cities are most urbanized: Istanbul (90%), Ankara (88%) and Izmir (81%)⁷.

Households are growing even faster than population --- roughly 3.0% annually -- because as people become richer, the average number of people in a household declines: from 5.3 people to 4.5 people in the last two decades⁸. In only four years, 2000 to 2004, households rose 13%, an average of 350,000 to 400,000 new households a year⁹.

Residential growth is changing the character of Turkey's urban neighborhoods¹⁰. It is running well ahead of infrastructure, leading to over-stress transportation, water and sanitation¹¹.

1 Turkish Statistics Institute (TSI), "2007 Population Census Results," 21 January 2008

2 Can Fuat Gürlehel, "The Growth Potential of the Housing Finance System in Relation to the Housing Need and Housing Demand in Turkey 2015," Real Estate Research Report-2, GYODER, May 2007.

3 Serap Mutlu, "Turkish Real Estate Sector," Raymond James Securities -- Turkey, 17th October 2007.

4 TSI, 2007

5 Gürlehel, 2007.

6 Ibid.

7 TOKI, "Residential Market overview," 2006

8 TSI, 2007

9 Mutlu, 2007.

10 Umut Duyar-Kienast, "The Formation of Gecekondu Settlements in Turkey," Habitat International, Lit Verlag, Hamburg, 2006.

11 US Department of State, "Background note Turkey," 2008. <http://www.state.gov/r/pa/ei/bgn/3432.htm>

B. Housing and housing production

1. Current housing stock. As of 2000, only about 62% of the 13.6 million buildings in Turkey's urban areas had construction permits; only 33% had utilization permits. Estimates of urban housing stock¹² range from 15,000,000 to 19,200,000, of which perhaps half need to be renovated (meaning serious structural concerns) and perhaps one-third are below minimum standards and poor quality. In Istanbul, two-thirds of the dwellings are estimated to need renovation¹³.

Even with (formal) housing production running at high levels, nearly 570,000 homes in the last three years¹⁴, demand is growing faster, at 650,000 to 700,000 new homes required annually¹⁵. The nation is estimated to have a housing backlog of 2,500,000 homes¹⁶.

The areas experiencing the fastest growth in percentage terms are the holiday home coastal regions, Antalya and Muğla,¹⁷ creating some need for workforce housing. However, by far the greatest need, in terms of unmet housing demand, is in the nation's major urban areas.

2. Housing construction costs. Typical urban housing is estimated to cost US \$500 per square meter¹⁸, with site infrastructure adding another \$150 per square meter¹⁹.

3. Potential new housing production. The Turkish construction services industry is one of the world's largest, with over 90,000 firms, of which 130 large companies in the Turkish Construction Association handle about 70% of all construction nationwide. There is no shortage of construction materials: Turkey is 11th in global cement production, 13th in steel. In both areas, privatization of state-owned enterprises resulted in significant quality upgrades²⁰.

Construction also includes a large informal sector, estimated at as many as 70,000 unregistered companies, many of whom doubtless work on gecekondu and illegal housing²¹.

¹² Gürlesel, 2007.

¹³ Interview with Fatih Kara, TOKI, 2008.

¹⁴ Turkish Statistical Institute 2006.

¹⁵ Mutlu, 2007.

¹⁶ TOKI, "Planned Urbanization & Housing Production Mobilization 2003-2007," presentation, EMEA, UAR, 2007.

¹⁷ TOKI, 2006

¹⁸ Costs do not include land, marketing, sales, after sales, corporate overhead etc.

¹⁹ Interview with Faruk Goksu, Kentsel Strateji. A slightly higher estimate was provided by Selahattin Seslioglu, Avrupa Konutlari, both interviews in 2008.

²⁰ Katsarakis et al, 2005, "Turkey and the Construction Services Cluster," *Microeconomics of Competitiveness - Spring 2007*, Harvard Business School.

²¹ Ibid.



4. Affordable housing production. Since 2001, Turkey's Housing Development Administration (TOKI) reoriented its goals and objectives, and dramatically increased its involvement with direct production. Between 1984 and 2003, TOKI provided financing (mostly supply-side) that contributed to producing 940,000 homes (or about 47,000 per year), of which only 43,000 (2,000 per year) were directly produced.

All this changed in 2003, when TOKI became very active in developing and building new affordable housing throughout the country. After setting itself a target of producing 250,000 homes in five years (50,000 per year), between 2003 and 2007 TOKI has developed or built 300,000 homes or apartments (20% more than the goal) in 81 provinces, 389 districts, and just under 1,000 individual sites. Of this production, TOKI also assisted in the financing of 56,000 homes (19% of the total).

There is no doubt that these new homes are high quality, and appreciated by their residents and communities. Yet even with this effort, new supply has not kept up with the increase in housing demand, nor is there any reason to believe that the gap will be closed naturally.

A new approach is required, not necessarily replacing TOKI's current business model but adding to it, in the area of finance.

C. Housing affordability and finance

The largest gaps in Turkish housing relate to finance, particularly for affordable housing. In its peer-nations such as Mexico and Thailand, housing finance is readily available, with the result that buying and selling homes is neither difficult nor expensive.

By contrast, in Turkey, many home loans are made on a deferred-transfer based analogous to a land contract, where the lender keeps title to the property until the final payment is made. Loans are expensive, averaging about 25% annually (quoted in monthly rates of 1.85%), with rapid maturities of 3 to 8 years. Loan-to-value at origination is a very low 50%²², and insurance is required for earthquake, property accident, and life.

Formal financing is better²³: 20% down (instead of 50% in the land contract model), with fixed interest rates ranging from 12.5% (0.99% per month) to 18.0% (1.40% per month), with slightly longer maturities (5 to 12 years).

²² Seda Önen, "Housing Finance System & Mortgage Backed Capital Market Instruments," presentation, Conference on Housing Finance & Turkey III, Istanbul, 2006. http://www.gyoder.org.tr/sunum/kf3s/Seda_Onen.pdf.

²³ Interview with Semih Nezir, Nurol, 2008.

The Turkish government, recognizing the necessity for providing long-term finance, has recently enacted a new mortgage law, and the Capital Markets Board of Turkey (Sermaye Piyasası Kurulu, SPK) is now promulgating regulations to enable banks to issue asset-backed securities. But the law is new, and it will take some time to build up all components in the mortgage value chain, including specifically:

New loan products.

Consumer awareness and acceptance of mortgage financing and longer-term borrowing.

Capable mortgage originator companies and individuals.

Forms of secondary-market liquidity (i.e. direct loan sales, securitization).

Virtually any government action that accelerates the takeup of mortgage financing will be in Turkey's policy interest.

D. Gecekondu transformation

Although precise estimates vary, there is no doubt that Turkey has a large stock of informal housing whose construction is substandard (especially in light of Turkey's position along major earthquake fault lines). From the perspective purely of improving Turkey's cities, it would be very desirable to improve gecekondu:

- Construction
- Earthquake reinforcement
- Legal title and taxation

In some cases, the best solution would be demolition and rebuilding, as the current structures are low-density, poor quality, and have irregular electricity and plumbing.

Rationalizing gecekondu status via any program that is amnesty, or is widely seen to be amnesty, can create a 'moral hazard' precedent. Various gecekondu amnesty laws enacted in the 1980's legalized gecekondu and unauthorized building in planned areas, with the predictable but highly unfortunate result that they encouraged further illegal construction or home improvement²⁴. Perhaps in response to these undesirable consequences, gecekondu amnesty (which used to be a frequent occurrence) has not happened for 21 years, since 1987²⁵.

²⁴ Ayse Pamuk, "Convergence Trends in Formal and Informal Housing Markets: The Case of Turkey," *Journal of Planning Education and Research* 16, 1996.

²⁵ The last gecekondu amnesty law was issued in 1987 according Duyar-Kienast, 2005.



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Turkey has a national interest in improving gecekondü neighborhoods, strengthening homes against earthquake risk and otherwise bringing them up to building codes, and in eliminating illegal construction on adversely owned land. Solutions must recognize the physical reality of properties and not penalize innocent homeowners, yet must not create new forms of amnesty. Municipalities must be involved, often via urban regeneration and renewal projects conducted by TOKI and the municipalities.

Section 3. Gaps in Turkey’s housing system

Turkey’s economy is strong, which means housing demand is growing rapidly. The government has sought to address this by being a direct provider of housing supply, which is only one of several possible roles it could play. The other roles are empty, with the government having little or no activity.

	<i>Land and zoning</i>	<i>New housing</i>	<i>Existing housing</i>
<i>Supply side</i>	Small activity	Builds directly	No activity
<i>Demand side</i>	No activity	No activity	No activity

TOKI’s direct development of new sites and homes is not a bad thing in the abstract, but it is a bad thing for Turkey today, for two reasons:

1. It is deadweight. In economic terms, ‘deadweight’ means work done that is simply displacing market activity that would otherwise occur. This is the case here; if TOKI were not building these flats directly, the market would, except in rural areas of southeastern Turkey where it is questionable whether there is enough demand. Indeed, anywhere in Turkey that there is effective demand, the private sector could build the properties so long as the economics work, or can be made to work with suitable capital or resident income subsidies.

2. It distracts TOKI from other missions. The spaces left empty – especially on the demand side – cannot be filled by the private sector on its own, because there is non-commercial risk (e.g. long-term interest rates and inflation) and other sectors are more profitable (e.g. high-end banking and corporate finance).

The work TOKI is doing, others could do. The work TOKI is not doing, no others could do.

A. Demand-side: increasing capital and credit for home buyers at all levels

In Turkey, the problem is not that homes are too expensive; rather, it is that *home loans* are too expensive, because they are (a) short term, (b) high spread (relative to the safe rate), (c) insecure (with land contracts rather than mortgages), and (d) under-competed (because they are new).



The biggest gaps in Turkey's housing system are on the demand side – helping people pay for housing – rather than the supply side – making home prices cheaper. The gaps are readily identifiable, and are described briefly below.

I. Broad market acceptance of mortgage finance

Mortgage finance is little known and less used. In part, this is simply a matter of time; the mortgage law is new, companies are being set up and licensed, and the asset-backed securities rules are not yet in place.

In part, government can play a strong role by creating products, supporting products, and encouraging Turkish households to use mortgage finance. TOKI is the natural to play all these roles, as it is very visible, strongly identified with housing affordability and consumer benefit, and should be offering or supporting such loans.

Gap identified. Lack of consumer awareness of mortgage finance, and the value of longer-term borrowing.

2. Long-term financing with government taking non-commercial risk

Banks lend for longer intervals when two conditions are met: (a) they discover they can sell more loans that way because longer terms mean more people buying homes, and (b) they feel safe in doing so.

Safety relates to risks that are in turn divided into two categories: (x) property-specific risks, and (y) macroeconomic risks.

Property-specific risks include borrower default (and borrower loss of income leading to default), lack of adequate collateral in the subject property, and reversal in the market leading to a price drop. These are high at the beginning and abate quickly.

Macroeconomic risks include inflation, recession, and rises in interest rates. These are low at the beginning, and usually low in any short-term time horizon, but very high when measured over years or decades.

Private lenders solve their risk problem by taking only property-specific risks, not macroeconomic ones. They do this by offering only products where macroeconomic risks are taken away, either because someone else buys the loan, or through a variable interest rate, or through a credit enhancement commitment.

Gap identified. Neither credit enhancement (increasing the credit-worthiness of loans) nor loan purchase capacity (buying loans from a lender, and thus giving the lender new cash to make new loans) exist in the Turkish market.

3. Secondary market liquidity: government buying loans or providing loan insurance

A lender starts its business cycle with cash, usually from investors (often institutionally), and then as the lender goes into business, and makes loans, it uses the cash to create assets – namely, loans receivable from customers who have bought homes. The balance sheet shifts from being cash-heavy to being cash-light, even as those assets shift from low-earning (cash being invested short-term) to higher-earning (loans whose interest rate has a favorable spread). At some point, however, the successful lender runs out of cash, not because it is failing but because it has been successful, and needs to turn its loans back into cash.

This lack of lender liquidity is a blockage in Egypt, where the handful of mortgage finance companies are gradually accumulating loan portfolios that they have no means to package and sell.

Lenders with a successful book of business can turn them into cash in several ways:

Originate for others. A lender could do all the origination, application, and underwriting work, and use someone else's money to close the loan. In the US, FHA lending uses this model: the private mortgage company is approved by FHA and delivers a loan commitment on FHA-prescribed forms, whereupon the FHA makes the loan at closing. The lender earns a fee and never deploys its own capital. The FHA model dominated the US from roughly 1949 through 1975. A similar approach has been used by the GSEs, Fannie Mae and Freddie Mac, since then.

Originate, warehouse, and sell in bulk. A lender could originate the loan, fund it with its own capital (this is called 'warehousing the loan'), hold it for a while to prove that it is performing (called 'seasoning'), and then sell the loan (called a 'whole loan' to distinguish it from securitization), or a group of loans, in bulk to an investor (such as a pension fund). If the loan was higher risk at origination, and the lender secured an interest rate reflecting the higher risk, then the resale loan would be safer, and the buyer would pay a premium for it – a price above par – the excess constituting the lender's resale profit.



Originate and securitize. Similar to bulk whole-loan sale, the originator accumulates a portfolio of loans ('book of business'), and then instead of selling them, achieves a similar cash result by issuing its own security (a debt instrument), on its own credit and with whatever rate the market will bear. The security is backed by the loan pool as collateral, and is normally a face amount smaller than the collateral pool (coverage). The principal difference in securitization is that the originator can make a higher spread, *but* has ongoing risk to the securities instrument and has a first-loss position in the book of loans.

None of these market mechanisms exists in Turkey.

Gap identified. Lack of a means whereby mortgage originators can liquefy it – that is, turn a successful book of business back into cash, through loan sales (individually or in bulk; to private or public entity buyers) or securitization.

B. Supply-side: Improving urban housing

Turkey has been much more active on the supply side – the creation of new homes. However, that activity²⁶ has been concentrated in three areas:

High-end market housing via the private sector.

Second homes, mainly in the coastal areas.

Some middle-income affordable housing via TOKI direct development.

TOKI has also entered the second home market, mainly in the coastal areas, in order to fund for its lower income projects. This activity concentration neglects important areas of housing production.

All of the challenges relate to creating urban housing, because that is where the demand growth will be and where it will be hard to expand supply.

I. Increasing urban density through demolish-and-rebuild on infill sites

As discussed in Section 2.A, population growth and urbanization of that population mean that Turkey's cities will grow rapidly; the only question is whether that growth will be haphazard or planned. Planned is better, because haphazard is a health risk, an earthquake risk, and a traffic nightmare.

²⁶ Because TOKI receives no direct government subsidies, it must fund its affordability measures through internal resources. This naturally leads it to some forms of development that generate profit, although there are other sources of profit and cash flow – land development or land release, and lending – that align much better with Turkey's housing needs.

Low-density gecekondü and even small-scale formal housing will not be enough; the urban centers of Turkey's major cities need to be redeveloped into mid-rise and high-rise flats. This phenomenon is readily visible in Istanbul, where several neighborhoods (such as Küçükçekmece, Zeytinburnu, Okmeydanı, Fatih, Kartal, Pendik) have seen large-scale demolition of one and two-story homes, to be replaced by 5-to-7 story flats.

Higher density is a natural market response, and a good one for cities. It should be encouraged.

Examples of demolition-rebuilding elsewhere in the world range from the US (HOPE VI public housing) to Bombay's Dharavi redevelopment plan (in progress). In both cases, government plays a significant role at several levels, including with money – tax credits, appropriated cash, and land contributed at no cash cost.

Demolition-rebuilding is complicated because land must be assembled. Some of the land will be owned by government (usually controlled by Milli Emlak*); some will be owned by landlords; others by private householders. The development activity is intensive and usually requires private-sector expertise. Local government usually plays a key role (see Point 3 in this section). Residents must be an active part of the process, not just because they have rights, but also because they contribute land and will be the natural market for the best homes.

This is a complex process that will take time to develop. Making it happen requires a government commitment.

Gap identified. Still immature is the business activity of demolition-rebuilding to simultaneously improve housing quality and increase density. The Portakal Çiçeği Valley project is a good but unusual example.

2. Improving informal housing through (a) physical upgrades (earthquake reinforcement) and (b) title formalization

Regardless of how much new construction housing is built in Turkey, either by the private or public sector, household growth and demand will outstrip it. Not only is the rate of urban

* **Milli Emlak Definition:** Milli Emlak Müdürlüğü, General Directorate of National Real Estate, monitors, administers and acquires & disposes if necessary the real properties of the Treasury immovables.



household growth running ahead of any realistic production estimate, more housing will lower the cost – good! – and encourage people to increase their standard of living by buying larger homes.

The plain fact is that most of Turkey's future housing stock exists already. The related plain fact is that much of what exists today is substandard, particularly when it comes to earthquake reinforcement.

Accompanying the lack of earthquake protection is informality of title or ownership. These two in fact reinforce each other; lack of formality makes it difficult to access financing to improve a home's physical condition, and its lack of structural integrity makes it difficult to finance, formalize, or improve.

This situation means that the private market will not fill the gap on its own. The government must enable change.

Government is in a position to take massive risks like major earthquake damage; in fact, government is already taking those risks *de facto*, because if tragedy strikes, government leads the rebuilding effort and pays for it out of general revenue. Further, if government takes the risk – say, by reinsurance against catastrophic loss, that will immediately change the ecosystem:

- Private lenders will be able to loan because they know their maximum loss from an earthquake.
- Government can use its financial resources to require change: require earthquake upgrading and title rationalization.

In other words, government can offer a package – a requirement to undertake the improvement, financing to fund the improvement, a requirement to acquire title as part of the loan, and the establishment of proper tax payment after formalization.

Examples include the State of Massachusetts' program of mandatory sprinkler installation in all high-rises.

Gap identified. There are no means whereby owners of smaller informal properties can bring them into the formal system in exchange for reinforcing them against earthquakes.

3. Release of more land to local and municipal governments for high-density mixed-use development

When it comes to urban redevelopment and land assembly, real estate is a local business, and hence the most effective unit of government is municipal or regional. Experience in the US, UK, and India, to name only three, has shown that municipal government, being closest to the action as it were, is most able to design the appropriate scheme, persuade local stakeholders (whether owners or developers or elected officials or taxing bodies or influence makers) to participate, and make changes in the scheme as circumstances warrant.

In Turkey, land owned by the public – which represents slightly more than 51% of all land in the country, is controlled via the national government, with authority vested mainly in Milli Emlak, which has authority to preserve, manage, and supervise the use of land.

However effective Milli Emlak can be, it is distant from the markets, and it is only a single entity, so it will tend to use standardized approaches.

In the US, to take a useful example, affordable housing policy originated in Washington with the national government for a period of over forty years (1949 through 1986). Starting in 1987, however, state housing finance agencies (HFAs) were given an increasing role and the national role has waned. Instead of the national government providing programs nationwide and then approving transactions one by one, each state HFA is given its own allocation of financial resources – tax credits, loan funds, grant moneys, interest subsidies – which it then allocates throughout the state in whatever fashion it sees fit. There are some minimum standards imposed by each national program, but the variety is truly astonishing.

National resources are revenue-shared back to the states, who are motivated annually to spend-it-or-lose-it. The result is much more effective than a national program, and the stakeholders are enormously more satisfied.

Gap identified. Local and municipal governments have no controllable means of securing land for development or assembling land for redevelopment.

4. Affordable rental housing

Urbanizing nations with growing economies often benefit from rental housing that is both high quality and affordable for the long term. However, private market economics



works against both factors. Because it seeks to maximize income from a poor population, the pure private sector tends to offer smaller units, minimal maintenance, crowding and overcrowding. The result, if left unchecked, is an economically rational but socially undesirable slum.

Developed nations have responded to the slum paradox by creating 'mission owners' – entities that own and operate rental apartments, but with a purpose of providing affordability and quality. Some of these are purely government, as in US public housing or UK council housing, but most are private entities, chartered as charities and regulated by a government authority (HUD or the HFAs in the US, the Housing Corporation in the UK).

Experience in developed nations has shown that private-public partnership works better. Government is a natural regulator, not a natural owner/ operator. In both countries, direct government ownership was the first response, gradually superseded by a public-private model.

Gap identified. There is no concept of an affordable housing 'mission owner' – such as a non-profit, charity, or public-private partnership subject to a charter.

5. Formal housing for very low income households

Economically, Turkey's population, like that of many nations, is a pyramid, with a small fraction of households having high incomes and larger shares with lower incomes.

Typically, formal real estate financing and innovations work 'down the pyramid,' starting with the most affluent groups and gradually expanding one affordability band at a time.

This is economically logical, because the highest-income groups are the lowest risk and also the largest transactions, hence the largest profit per transaction.

Gap identified. There is no formal housing for very poor people. They must choose overcrowding, informality, unaffordability, or most likely a combination of all three.

Section 4.

Turkey relative to peer-group nations

Overall, Turkey's leading business and industrial institutions are world-class, but its housing sector is lagging in all relevant areas. Because of this, Turkey should:

- Develop its vision of a future housing system with reference to Europe and the Americas.
- Take as positive peers with successful experiments worthy of study: Thailand and Mexico.
- Take as cautionary tales the experience of peer countries Egypt, Korea, and South Africa.

For this report, we have identified five countries whose population, economy, living standards, and housing market dynamics are in some way comparable to Turkey, and whose recent housing finance experience offers comparisons – both positive and negative – for Turkey, because of these characteristics:

- Each country has a fast-growing economy and a standard of living placing it within reach of global north nations.
- Each country has some core industries or sectors that are world-class and can tap world-class expertise both home-grown and from abroad.
- Each country has a rapidly urbanizing population that is driving the formation of mega-cities whose infrastructure is not keeping up with growth in population, resulting in large areas of informal housing.
- Each country has a mix of governmental bodies with interest in housing (e.g. Ministry of Housing, Ministry of Finance, Ministry of Investment), and at least one government corporate entity (GCE) whose remit includes housing.
- Except for Egypt, each country experienced a dramatic shock a little more than ten years ago that for the first time enabled long-term macroeconomic and capital planning, so that its situation back then is not dissimilar from Turkey's when Turkey revalued the Turkish Lira.
- Each country is a little further away from its shock, meaning that its experience may offer glimpses as to possible futures for Turkey.

These five countries²⁷ – Egypt, Korea, Mexico, South Africa and Thailand – have populations of roughly similar size, GDP per capita within a reasonable band (less than the OECD nations, much more than typical of the global south), similar Gini coefficients, and reasonably similar inflation and macroeconomic environments.

²⁷ To be sure, they are not the only potential 'comparable' countries, and there are lessons to be learned elsewhere as well.



Most significantly from a financing perspective, four of the five (Korea, Mexico, South Africa, and Thailand) experienced dramatic economic or political change a little more than ten years ago, and have reacted in diverse ways to these challenges. The existence of similarly timed shocks, and the divergence of response, makes these countries especially useful points of comparison for Turkey.

A. Aspirations: Europe and the US

Europe and the US have extensive, well-developed housing finance and regulatory systems. In both the US and UK, governments act principally as a regulator, and in recent years, both governments have been moving to privatize ownership and management of affordable rental housing, and place the government in a wholesale, or secondary, role.

1. UK and US: the role of government. In both the US and UK, government's principal role has been to facilitate orderly markets. Government is not a direct builder of affordable housing and is an owner only of very low income rental (called public housing in the US, and social housing in the UK).

In both countries, government has evolved toward a role whereby it facilitates private involvement in both the delivery of housing (building, owning, management), and its financing (lending, credit enhancement, and secondary market making).

2. UK: housing associations. Unlike Turkey, the United Kingdom has a static population (little population growth) and a largely immobile labor force. Thus its housing challenges have less to do with creating more homes, and more with creating affordable housing for low and very low income populations.

The UK has accomplished its housing affordability through the growth of its non-profit rental Housing Association sector. These organizations, many of them faith-based, develop professional expertise but use their profits and excess cash flow to develop more properties. The model has been much more successful than the UK's experience with direct local government ownership of affordable housing. For more than fifteen years the UK government, both Conservative and Labor, has pursued policies that continue to privatize housing from government ownership to non-profit Housing Association, via devices such as stock transfer and the Private Finance Initiative (PFI).

3. US: housing finance via Government Sponsored Enterprises (GSEs). In the US, the principal government housing involvement is via government sponsored entities that act

on the demand side, providing financing, credit enhancement, or loan product innovation, all of which contribute to lowering the cost of capital for home buyers. Major entities include:

- **Veterans Administration (VA) and Federal Housing Administration (FHA).** Founded in 1937, these two agencies offer long-term home loans or mortgage insurance. Even today, VA/FHA lending represents a bulwark of affordable home ownership for Americans.
- **Fannie Mae and Freddie Mac.** Chartered in 1974 and largely privatized in 1994, these two entities hold 40% of all mortgages in the United States, and as recent events have shown, their reliable access to capital markets is a useful stabilizing force.
- **State housing finance agencies (HFAs).** Each US state has a housing finance agency, a quasi-public corporation whose board is appointed by the state governor, and which issue long-term bonds to finance a variety of housing tenures within the state.

While it may seem superfluous to have multiple entities, each group performs a slightly different activity, and the layering and combination possible among the actors assures US consumers a wide variety of products and constant innovation.

B. Successful experiments: Thailand, Mexico

In addition to European and American forms, which represent mature entities operating in an evolved environment, Turkey can look to emerging nations of similar economic achievements, whose housing finance systems demonstrate features that Turkey could use.

The promising candidates are Thailand and Mexico.

1. Thailand: reorienting the government housing bank, GHB.

Thailand is a growing economy that, like Mexico, suffered a major financial crisis roughly a decade ago, and has since recovered impressively. Like other East Asian economies, Thailand suffered a collapse of its currency, the Thai baht, caused in part by excessive real estate speculation. The IMF and US intervened to support the besieged currencies.

In terms of housing, Thailand faced enormous challenges in developing clear title and registration procedures. Each of them undertook lengthy (multi-decade) programs, both of



which are only halfway through completion. Yet each shows substantial benefits in housing finance, and (not coincidentally) booming real estate supply markets. The Thai initiative included:

- Legal reforms.
- A major public awareness campaign.
- Risk mitigation by the Government Housing Bank (GHB; www.ghb.co.th/eng/) through direct lending and purchases of loans from private lenders. Legal innovation, including lease-purchase, with government administrative and legislative support.
- Significant product innovation by the GHB, including proprietary loan products to complement the legal innovations.

Although Thailand's Government Housing Bank has existed for more than fifty years, after the East Asian crisis the bank reoriented its business model more directly to reviving housing and real estate, including the provision of thirty-year fixed low-interest loans (backed by proceeds from the Government Savings Bank), and creating a secondary mortgage market division.

2. Mexico: Effective demand-side partnering, SOFOLs and SHF.

Mexico is a useful comparable for Turkey not just demographically and economically but also because of its recent history – from a period of massive currency instability, Mexico has demonstrated an impressive rebound in a short time and create a rapidly growing and very functional housing finance system.

In early 1995, Mexico suffered an economic and currency crisis triggered by a sudden devaluation of the Mexico peso, which event was seen as a capital-markets repudiation of previous profligate government spending and ill-advised financial policies. After prompt intervention by the US and IMF the country put in place new economic and financial policies, and since then Mexico's economy has grown rapidly but under control.

Mexico's Sociedad Hipotecaria Federal (SHF; www.shf.gob.mx) is a national housing finance bank, created in 2001 to inherit the functions of a financially insolvent previous bank, FOVI. Similar to the US's Ginnie Mae, SHF provides direct lending and creates a secondary market for home loans. Buying loans from mortgage banks (whose Spanish acronym is SOFOL), SHF has created a thriving market in long-term financing.

In fact, SHF has been so successful that it has migrated away from direct mortgage finance as the private sector and the SOFOLs have grown their capacity. Now SHF act as a second-tier bank that channels funds to SOFOLs and other financial intermediaries, who then originate new mortgages, which SHF buys after they have been seasoned. Further, starting in 2009, SHF's role will migrate even one step further away from direct loan involvement, as it will become a pure mortgage insurer, and continue to develop Mexico's secondary market in mortgages.²⁸

C. Cautionary tales. Egypt, Korea, and South Africa.

Each of these three countries represents a cautionary tale for Turkey in that:

- Its government has prioritized housing affordability and supply.
- As a result, it has undertaken experiments in housing via governmental involvement or public-private partnership.
- These experiments have been stillborn, slow-starting, ineffectual, or appear to be drifting.
- As a result, housing supply and affordability do not match housing demand.

Although each country's situation is different, we believe that brief summaries of each experience represent cautionary tales for Turkey, because hindsight makes visible their policy mistakes.

1. Egypt: Government dominating the supply side, Ministry of Housing

Egypt faces well-documented blockages in its housing finance. Titling and registration of urban land are enormously complicated procedures (the process takes 77 steps and 6-8 months, plus fees), with the result that 93% of all urban Egyptian property is not formally registered.

A long-standing form of rent control, originally promulgated by Gamel Abdel Nasser in the late 1950's, is confiscatory in its financial effect and slowly destroys buildings and neighborhoods, where long-controlled buildings deteriorate because the landlord has no incentive to maintain them.

²⁸ Information provided by Harvard Kennedy School of Government student Joseph R. Byker, Policy Analysis Exercise, 2008 (forthcoming).



Further complicating matters, a material number of expatriate Egyptians buy housing 'back home' in anticipation of later returning to Egypt. The net result is a massive supply of unoccupied homes -- estimates range from 1.0 to 1.8 million properties -- despite a chronic housing shortage, and a mismatch between new production (high end, socioeconomic Classes A and B) and the burgeoning demographic need (middle market and especially low income, Classes B and C).

These obstacles have thwarted development of the normal range of professional services and capacities -- housing finance companies, mortgage brokers, appraisers, credit bureaus, and settlement agents -- that would allow a housing financial marketplace to spring rapidly into being. Equally significant, 'work-arounds' developed in the marketplace allow a system of sorts to function at a level of reduced efficiency. These include registered deeds (which are enforceable but not readily accessible), installment-sale land contracts from developers (that are paid off over about seven years but give the home buyer no protection in the interim), and *haq* loans that act much the same way. Housing finance companies are in their infancy (only a handful exist), offering short-term loans (5 to 7 years), with very high debt service constants.

The combination of inefficient financing and very slow property transfer crates anxiety among potential homeowners, and leads to people jumping precipitously to new housing, and then buying more than they need because they realize it will be difficult to find and buy another home.

Meanwhile, Egypt's Ministry of Housing, under a New Urban Communities initiative, acts as a closed-shop land developer. Under Egyptian law, the Ministry of Housing owns the desert and controls zoning, and releases land for development in exchange for some number of affordable flats to be built by the developer and deeded to the Ministry of Housing. The Ministry of Housing in turn sells these²⁹ to qualified low-income borrowers (many of them reportedly civil servants) on extremely favorable rates and terms: 30-40 years, with interest at 5-6% (below Egypt's 8-12% annual inflation). Compared with market costs of capital, they represent a 48% discount from a 'par' instrument. It should come as no surprise, therefore, that the resulting homes are snapped up by the marketplace. Outside sources of finance cannot compete with the ministry, and hence are discouraged from growing their business in housing at all, stunting development of a finance sector.

²⁹ Because the Ministry of Housing has acquired the apartments for free (a consequence of granting zoning to the land), the loans it holds become its own assets, and it has no need for liquidity.

Principle observed after the fact. A single government ministry that combines control of land, control of zoning, the ability to offer its own discount or below-market finance, and control over a large portion of new supply can pre-empt or block out the formation of private capital and development markets in affordable housing. Though a substantial number of homes are created, the state locks itself into being the sole source of affordable housing, a rate it cannot keep up, and (no doubt unintentionally) completely cuts out the private sector. The results are distorted markets that grow more distorted as supply fails to keep up with demand.

2. Korea: lack of effective demand-side financing, jeonse

Like Thailand, Korea suffered a severe financial crisis in the late 1990's as part of the overall East Asian Crisis. Emerging from that, Korea has experienced impressive economic growth and vast, rapid urbanization, mostly in and around Seoul, the capital.

The Korean affordable housing system – for that matter, virtually the entire Korean residential market generally – is stressed and pulled in multiple directions by government policy. A broad urban-planning green band around Seoul originally sought to contain development in the downtown but has instead resulted in development leapfrogging outside the green band, creating both density and traffic congestion. Prices (and even sizes) of new homes are set by government, but resale prices are not.

Most flats are bought and sold via prepaid leases or purchases, both called **jeonse**. In the **jeonse** system, the buyer/ new occupant makes a large up-front payment (half or more of the total price), paid to the owner/ seller, and then makes relatively small monthly payments. Then, similar to the Egyptian land-contracts and **haqs**, the buyer receives title only at the end of the payment sequences. The combined effect of this 'layaway plan' for housing is to slow down capital movement and discourage people from adjusting their housing consumption and tenure to their family and financial situations. Parents often buy a **jeonse** for their children, then rent the **jeonse** out, waiting for the children's family and income to rise. Many also buy **jeonse** as investments and keep them empty, further contributing to a mismatch between supply and demand, and a combination of needless vacancy even as there is high housing cost.

Despite the massive inefficiencies built in to this system, and the lost benefits for consumers, most people in Korea – including home buyers and renters – like the **jeonse** system. Precisely because it is so hard to obtain housing under **jeonse**, many Koreans see this as their principal goal, and will spend years aspiring to **jeonse** ownership.



There is very little pressure for reform and the financial markets for residential housing are thus in their protracted infancy.

Principle observed after the fact. Government failure to create demand-side financing led the market to develop an inefficient work-around. The resulting work-around rapidly reverse-engineered the political environment to protect itself, so that the system is now thoroughly ingrown and will be very hard to eradicate, even though nearly all outside observers agree it poorly serves families seeking housing.

3. South Africa: a missed opportunity for private-public partnership, the Financial Sector Charter

In South Africa, housing and land use were used deliberately as part of the white minority's apartheid regime, so with the transition to full democracy in 1994, South Africa experienced a socioeconomic shock fully as dramatic as the economic shocks experienced by other parties.

Further, because in 1994 power shifted from whites to blacks, a government arose whose members had no experience whatsoever with governing and whose departments were now interacting with a fully developed and indeed world-class banking and financial sector.

The result was a decade of discussion, rising gradually to formal negotiations, leading to promises leading to programs that led to shaky implementation and frustration from stakeholders on all sides. One such well-documented and massive failure was in Gateway, where banks provided loans to first-time home buyers, who then defaulted when interest rates rose dramatically, and when the banks foreclosed, the townships resisted and the banks could not regain possession of the housing. Eventually the homes were sold into a government-sponsored entity, at massive loss to the banks, thoroughly disillusioning everyone involved.

Meanwhile, the broader property sector boomed as South Africa was rediscovered by world markets, including investment markets, contributing to the rapid runup of property values and land values in the established, settled white areas. At the same time, informal settlements, known generally as "formerly black townships," grew and slowly formalized, with shacks giving way to purpose-built brick houses, as well as the redevelopment of formerly apartheid 'matchbox' and 'RDP' housing (typically 30-40 m² in 3-4 rooms).

By 2002, it had become clear to the African National Congress (ANC) dominated government that growth of formal housing supply was falling behind demand, which was being swelled by (among other things) illegal immigration from South Africa's northern neighbors, most particularly including Zimbabwe. The ANC-led government hit upon a novel strategy to use the well-developed private sector in pursuit of housing affordability. By proposing or suggesting prescriptive legislation (modeled, albeit clumsily, on the US Community Reinvestment Act), the government induced the major banks to come together to make a pledge called the Financial Sector Charter, which was signed with much fanfare in October, 2003.

Under the Charter, the financial community pledged to achieve various production, penetration, and affordability targets, with no explicit promises from government as to new resources³⁰ or policy changes. Signing the Charter led to a burst of renewed optimism, but in the 4½ years since, little has happened. Government has generally not come forward with initiatives, and the banks have settled down to complying with the numerical targets as a price of doing business. The government's failure to act has been in part due to the inactivity of its government housing entity, the National Housing Finance Corporation, which despite a vast cash and liquid net worth has not innovated any financial products and is today only one-half lent out.

Thus the Charter's promise has not been fulfilled, and many opportunities have been lost. There is a growing sense that the government has not yet come to grips with the need for government to act in ways complementary to the market, not just make speeches and new requests.

Principle that can be observed. Political honeymoons must be seized and converted into tangible programs swiftly, before the goodwill fades. When the private sector has vastly greater resources – financial and intellectual – than the public, the private sector must extend itself, even to the point of donating resources or making unilateral moves so as to prime the pump and create the early successes; if not, the political goodwill dissipates without consequence, leaving government adrift, private sector embittered, and each retreating to its old ways, raising the specter of reversion back to a statist model (like Egypt) or an ingrown inefficient incumbency (like Korea).

³⁰ Part of the 1994 transition to full democracy was a statute enacted that gave every South African black who was a citizen in 1994 a 'birthright' style right to a one-time cash subsidy payment upon purchase of a home. Because this subsidy is in cash, lump sum, and payable only on a new home, and first home, it has had a distorting effect on the formation of markets for affordability and house price bands just above and just below the subsidy line, and has inhibited the development of effective and functioning markets in these bands.



Section 5. Turkey's housing system: a vision of the future

In addition to examining Turkey's current housing system, it is useful to project 10 or 15 years into the future and imagine what a fully developed housing and finance system would entail. Knowing where Turkey would like to go in the long term will help inform important decisions and necessary initiatives in the short term.

To that end, we have identified 17 different government activities that are used in one or more of the world's developed countries. These divide roughly into six broad categories:

- Land use and land assembly
- Efficient market transformation
- Production of new housing
- Lending and housing finance
- Subsidy and incentives
- Regulation

For each category, we will describe the types of government activities, discuss what Turkey does today, identify a vision based on more developed nations, and from that identify possible steps Turkey should take.

A capsule summary of these elements of housing finance, Turkey's current status, a vision of the future, possible steps and foreign examples, is provided as Exhibit 2.

A. Land use and land assembly

Management of land is obviously critical to effective density increases in urban and urbanizing areas. Further, management of government trunk infrastructure and targeted development zoning can yield long-term affordability in some homes, with no cash expenditure by government.

I. Zoning and land use. In the intermediate and long run, a city is defined by zoning, if for no other reason that in strong markets, land is eventually built out to the zoning maximum.

Increasing zoning density makes land more valuable at a stroke. This means that a government body that grants new higher-density zoning effectively prints money (in kind, not in cash) which belongs to the land owner. As a result, land owners (or buyers) seeking

rezoning will pay something – in cash, infrastructure, or affordability concessions – to secure rezoning approval.

Further, zoning is a tool that becomes more effective as (x) a country urbanizes and formalizes, or (y) markets strengthen in value. While at the beginning zoning may be more ignored than observed, over time – and particularly as density increases – formality and zoning conformance matter more, because they will affect property resale value. Coming into zoning compliance, in other words, becomes *more* valuable over time, not less.

Every successful metropolis we know uses zoning, at the municipal level, to manage its growth and to capture for the city some of the value created by rezoning.

2. Use of government-owned land. Not only is government able to control formal development through increased zoning (Point 1 above), it also can shape neighborhoods, and their affordability, through contributions of government-owned land.

Further, if Turkey is seeking long-term affordability, it can purchase this through release of land *at nominal cost in exchange for affordability commitments*. This practice – trading development rights for a percentage of affordable homes – is well established in the US and UK, and works very effectively, more effectively over time.

3. Trunk infrastructure. Traditionally this is a function of government akin to zoning and release of government-owned land. It costs money, appropriated expenditures, and is most cost-effective if done in greenfield, before development arrives.

However, infrastructure before development is not the norm. In cities that are rapidly urbanizing, neighborhoods spring up like mushrooms. These fast-growing largely informal areas either lack infrastructure entirely, or find it overburdened by new users. Often the modest formal power, water, and sanitation systems are clandestinely tapped into by informal households.

For government, the problem is that whether legal or illegal, these new users strain the system (especially the sanitation system), causing health problems to everyone and even to the city as a whole.

The major challenge for Turkey, as for many rapidly urbanizing nations, is how to make trunk infrastructure 'catch up' to neighborhoods that, whether desired or not, exist and cannot simply be wished away.



Demolition-and-rebuilding of gecekondu areas, therefore, is not simply giving in to people; it's often economically rational for governments because it allows government to sweep away the thicket of pipes and wires, and to reduce the long-term cost. Since it also conveys a substantial benefit to users, government is in a position to motivate them to go along with a demolish-and-rebuild strategy, provided they have a right to return, and that right is honored when the time comes.

4. Land development. Akin to the business of overall infrastructure development is land development: subdividing and area into plots or sites, running simple site infrastructure, pouring a concrete slab foundation (or driving pilings in places with earthquake risk or expected multi-story construction). The result is a 'sites and stands' neighborhood on which either property developers may build dozens or hundreds of homes, or consumers can start with a basic 'embryo house.'

Coupled with release of government-owned land, partnering to create land development, within a larger scheme, is an effective means whereby government can channel new housing production and new affordable housing production into expanding areas.

B. Efficient market transformation: title and zoning and transfer

Efficient, fast, visible, reported, formal market activity is a hallmark of developed housing ecosystems. Informality, however economically rational and culturally prevalent, is inefficient, and thus the overall trends and programmatic goals must be toward transformation/integration into the formal sector.

The government has made gecekondu a priority activity, and appropriately so.

At the same time, when informality is common or the norm, it cannot be eradicated by fiat. Stakeholders must be motivated to comply through a combination of incentives and penalties. This is especially true in housing, which is a core imperative for everyone, and which is both long-lived and expensive to change.

The practical reality is that most informal housing of good construction quality is transformed into formal, sooner or later, everywhere in the world. This has been true for centuries and it remains true today.

The challenge, therefore, is to define rules and money resources that motivate more people to transform housing gradually and to make informality less and less attractive, legally and financially. Transformation and efficiency apply in this context to three areas.

5. Urban regeneration. Informal neighborhoods will improve in only two ways: demolition and rebuilding (with or without resident cooperation and a right to return), and gradual urban-regeneration improvement.

In reality, though demolition-and-rebuilding will work in many places, it will still be infrequent. More neighborhoods will be improved through regeneration. Some regeneration will be fast, anchored by large-scale urban projects, new retail or shopping centers, or employment growth. Some will be slower, as home owners and landlords do it themselves.

Government can stimulate regeneration on either the supply side – financing larger schemes – or the demand side – creating resources (like low-cost loans) available to individual homeowners. Demand-side incentives – that is, resources that homeowners can tap if they want to – will have a faster takeup because people will be able to make their own choices, at small scale.

6. Home improvement. Most of the housing that will exist in Turkey in ten years exists today. Much of that is illegal housing or *gecekondu*. Much that is not traditional *gecekondu* is nevertheless substandard, possibly as to construction, and particularly regarding earthquake reinforcement.

Two demand-side examples from developed nations are (a) energy conservation, and (b) 'green' initiatives. In both cases, aside from aggressive public-relations campaigns to encourage people to 'do the right thing,' government often provides small grants, low-cost loans, or tax incentives to people who use the money for specified purposes. Though these amounts are small, they are meaningful to homeowners, and thus popular. They also give the skeptics and bystanders a sense of envy when their neighbor makes his home better by using the program.

Such an approach would work well in Turkey, particularly around home improvement to reinforce property against earthquakes. For higher-density properties – blocks of flats – the loan or grant would need to go to the building owner or ownership group, which raises other problems ('free rider').

7. Title, recordation, and taxation. To be considered among the developed nations, Turkey must improve its compliance with tax laws. Significantly, reforming property laws to bring *gecekondu* and illegal housing into the formalized system will pay long-term dividends. In the short run, this may 'cost money,' but once property is registered and made visible, collection of its taxation is straightforward and enforceable.



Taxation and transfer procedures for formal property. Transfer of formalized property is fairly quick and efficient³¹: there is a combined 3.0% transfer tax (*Tapu Harci*), split between buyer and seller. Formal property is assessed modest real estate taxes (typically 0.1% to 0.6% of value as determined by the Valuation Commission), and an environmental tax similar to a US municipal water and sewer utility bill³².

Tax evasion and efforts to reduce it. At the same time, tax evasion remains widely prevalent³³: estimates of under-reported income range from 20% to over 200% of reported income. Tax evasion is most common when payments are made in cash, with dual pricing – one price if receipted, a lower price in cash – quite common.³⁴

Because widespread tax evasion erodes fundamental powers of the state, and contributes to massive economic distortion, tax reform to reduce tax evasion is one of the main elements of the current IMF program.

Transforming property advances long-term tax compliance. Property that is informal is economically handicapped: it is harder to finance, financing costs more, and the financier cannot avail itself of normal judicial collection procedures. This means that informal property is an asset of quasi 'dead capital' – that is, money spent to improve it is hard to tap as collateral for new borrowing or investment. Transforming that property and regularizing its title makes it visible to government for enforcement and capital markets for security and collection. This means that more money can be borrowed, at lower cost.

As many including Hernando de Soto have argued, there comes a point when the illegal owner is economically better off if his or her property is transformed into formal, because the costs of transformation are lower than the benefits of tapping more capital cheaper.

It's also better for government, so long as the transformation process does not create unacceptable political damage or moral hazard risk.

Once transformed, property is collectible. One key means of motivating people into compliance is to require a full accounting (a 'day of reckoning') when there is an important financial event – like sale of the property. It's striking that throughout history, compliance systems work *if* the non-compliance is documented, and then enforced *when the citizen wants a new government approval*.

31 http://www.turkeyresaleproperties.com/Guide_To_Buying/page_1884667.html, 2008.

32 Turkish Tax System, <http://www.allaboutturkey.com/tax.htm>, 2008

33 Serhan Cervik, "Of Taxes and Ferraris," Morgan Stanley, 2005.

<http://www.morganstanley.com/views/gef/archive/2005/20051011-Tue.html>

34 Douglas Franz, "A Tax bite with Gaps in Turkey," New York Times, 2001.

<http://query.nytimes.com/gst/fullpage.html?res=9F03E2D6123DF932A05754C0A9669C8B63>

Anecdote: the State of Massachusetts used to have a problem collecting on parking tickets, which would be issued by individual cities and towns and routinely ignored by people who lived in other cities and towns. Eventually the state was able to have all parking tickets tracked, on a central database, using unique ticket identifiers tagged to individual vehicles. Then the state enacted a requirement that anyone seeking renewal of a driver's license had to pay all his or her parking tickets – including late fees, interest, and penalties -- before the new license would be issued. Since driver's licenses are essential for adults, not simply for driving but also as the principal means of personal identification, parking ticket delinquency dropped overnight to next to nothing – **and** as a result parking behavior suddenly improved, equally dramatically, as people realized that scofflaws would eventually be caught, and being caught was much worse than either paying the ticket immediately or never getting one in the first place.

Real property lends itself to a wait-and-collect approach better than almost any other asset, because (a) it does not move (you can always find it), (b) it keeps its value (so a charge against property is always 'in the money'), and (c) when people want to buy an existing property, they want the seller to prove ownership (via title). Title-transfer enforcement takes a while to show its teeth, but when it does, the results are impressive.

A parallel approach, which can be used by itself or in combination with others, is to require transformation as a condition of receiving a financial benefit – like a cheap home improvement or earthquake-reinforcement loan – that many people will want. This 'sugars the pill' and gives the people who would like to comply a sense that they are being rewarded for doing so.

C. Production of new housing

In the long run – for that matter, in the short run – Turkey needs more homes than it has. This means people must build them. There are three candidates for builders: government, the formal private sector, and the informal sector. Most importantly for this analysis, if the first two groups (government and formal private) do not build enough homes, the informal sector will. So the policy goal should be to maximize the total number of homes produced by Government plus Private Sector, working in combination or separately.

As government cannot control the private sector, the best strategy is normally for government to choose its strategies not in isolation but via gaps. Government should do only those things that the private sector cannot do or will not do (because they are



unprofitable), and should seek not to compete with the private sector but rather to partner with it or enable it to do more.

8. Direct construction. It might seem that this means government should do as many new homes as it can, acting as a direct producer. Indeed, in Turkey, TOKI is a direct developer, builder, and constructor. This is highly unusual: in most developed nations, government has little or no role in new housing construction.

Nor is there any need for government to be a builder or contractor. Turkey has a well developed, sophisticated, and professional development and construction sector. Turkish builders and contractors routinely partner with European, American, and global firms in complex multi-use, multi-tenure market properties.

We think TOKI should exit from the development and construction businesses (except low-cost production; see next section), not because TOKI does either business badly, but rather because the private sector can build and develop equally as well, and TOKI's energies are more urgently needed in other sectors.

Instead of being a direct builder, government's more usual roles are in zoning and urban planning, land development, financing (either supply-side or demand-side), subsidy, and regulation. (These will be discussed below.)

9. Low-cost production. While the private market has little difficulty creating larger homes for the upper market brackets, governments throughout the world have historically participated in creating modest 'starter' housing, either rental or for sale. These cannot be economically produced by the private market, because the unit costs are better spent on larger properties, so if they are to be developed, government must underwrite the cost, either through subsidies or directly.

Particularly in peri-urban areas where there is adequate land, the government could develop a 'sites and stands' approach whereby it provides trunk infrastructure – streets, large-pipe water and sanitation – and prepared home sites – graded and with a foundation slab poured, on top of which large-scale developers construct individual basic homes (two rooms plus a small kitchen and shower/ toilet. These 'embryo houses' (as they are sometimes known) could be developed less expensively than fully completed properties. If they were then fully entitled – that is, formally registered – and provided they were built with basic earthquake reinforcement, the resulting basic homes would then be added to by homeowners via conventional refinancing or home improvement loans. Programs such as

Mexico's Patrimonio Hoy, and early post-WW2 US experiments like Levittown, have proved that even a modest property can form the fabric of a successful new neighborhood.

Although there is no need for TOKI to facilitate construction of new market-rate or fully-developed housing, Turkey should investigate having the government development low-cost 'starter' housing via TOKI.

D. Lending and finance

Every developed nation has one or more entities that act on the financing of housing, either supply-side (helping builders and developers create affordable homes) or demand-side (enabling customers to buy homes, either new or resale). Remarkably, Turkey has essentially nothing in the housing finance sector. Enactment of the new mortgage law creates a historic opportunity for Turkey, via TOKI, to become active in housing finance, in at least four ways. Each of these is an opportunity to create more housing and more affordability. Each of them is a business that should make money for the government. Each of them has proven predecessors throughout the world, and therefore is low risk, high value.

All of these activities should be urgent priorities for Turkey's government.

10. Direct lending. This is the most common initial action. Government creates one or more loan programs, whose proceeds are funded from the general tax revenues.

- On the supply side, government lending is often targeted to very particular tenure or configuration types (e.g. new housing for the elderly, or small starter homes).
- On the demand side, it is typically tied to particular affordability or homeownership-expansion targets: first-time home buyers, or homes below a stipulated price.

A very relevant example of direct lending is Thailand's Government Housing Bank.

TOKI should be in the direct lending business, on both the supply and demand sides, as quickly as possible. TOKI has a strong credit rating, an enormous pool of assets (see *Securitization* below).

11. Credit enhancement. If government has the experience and capital, but wishes to use its credit rather than cash, it can use credit enhancement, either directly in the form of mortgage insurance (as in the US FHA or Mexico's SHF) or indirectly via a government-



sponsored entity (as in the US's government sponsored enterprises Fannie Mae and Freddie Mac, or its housing finance agencies). Credit enhancement has the further benefit that it complements the development of independent mortgage banks (as Mexico's SHF complements its SOFOLs).

This is the single biggest opportunity in affordable housing in Turkey today. For Turkey's economic health and growth, it must be seized.

12. Secondary loan markets and securitization. Once the primary markets begin to generate portfolios of loans – as they surely will – it will need a secondary loan market to be established, either through whole loan purchase or via securitization. Either way, this is a priority activity, and one that is also a natural for TOKI.

America's Fannie Mae has demonstrated that an effective, large, secondary loan market maker can positively influence the primary market, in two ways: (a) by giving small entities a guaranteed outlet for their product, it can help grow the originator sector, and (b) by promulgating standards (Fannie Mae's Delegated Underwriting and Servicing, DUS) Turkey has already taken the important steps of promulgating regulations for mortgage-backed securities (MBS) and of publishing³⁵ for comment proposed regulations for asset-backed securities (ABS). From these to the establishment of a government securitization entity, presumably an offshoot of TOKI, is an easy and natural step to take.

13. Financial product innovation. Banks, for all their competitiveness, are not necessarily innovators of financial products for housing and especially for housing affordability. Due to the 'talent updraft' (the private sector pays most to the ventures that make the most money, which usually start with the top of the income pyramid), innovation arises first in complex financial securities for multinational companies, and arrives late, if at all, in affordable housing.

Here is an important side benefit of having a government housing entity that acts solely as a bank or financier. Because it is not distracted by other business areas (e.g. direct production or building), it concentrates exclusively on innovation in housing affordability. Further, when an innovation requires a subsidy or up-front grant to make the business viable, a government housing bank can get that funding from its parent government. In the same way, if government wishes to channel resources into housing finance, what better entity than via its owned or chartered bank?

India's IHFC is a striking example of success. So are America's GSE's.

³⁵ The draft regulation may be found at http://www.cmb.gov.tr/duyurugoster.aspx?aid=2008514&subid=0&ct=f&ext=.pdf&filename=2008514_0.pdf

E. Subsidy and incentives

Once we get past the financing group (Section 5D above), we enter the realm of the future. Subsidy – whether of finance or of occupancy and rental – normally arrives after a country has active housing finance entities. While it may be premature to imagine these areas in Turkey in the next ten years, they can follow rapidly upon success in housing finance.

14. Interest subsidy. If houses cannot be made cheaper to buy, they can be made cheaper to pay for. If the market cost of capital is too high, it can be lowered in either of two ways: indirectly via tax rates paid by borrowers and lenders, or directly via subsidy.

A. Taxation approach. Unless otherwise provided by tax law, income received by lenders is taxable at corporate ordinary rates; payments by borrowers may be deducted only to the extent permissible on individual tax returns. That leads to the possibility of using the tax laws to encourage home ownership and home lending, in several potential ways:

- **Borrower's ability to deduct interest.** Under current Turkish law, interest payments made by home borrowers are not deducted from income before computing tax. In the US, by contrast, the 'home mortgage interest deduction' is not only well established, but also widely embraced by consumers as a critical incentive (and costing nearly \$100 billion in 'tax expenditure' annually). The deduction can be further targeted – for instance, to first-time buyers, to the first stipulated amount of mortgage loan, or to primary residences only – to boost housing in very effective and precise ways.
- **Favorable treatment of interest income.** Some forms of lending – for instance, the purchase of bonds backed by home mortgages – can be made exempt from taxation by the holder. Once again, the US experience is instructive, where 'tax-exempt housing bonds' are allocated among the states according to formulas written in the US tax code. These bonds carry interest rates 20-30% lower than conventional bonds, and the savings pass through directly to home buyers.
- **Tax treatment of mortgage institutions.** To stimulate the growth of particular financial institutions (e.g. mortgage originators and mortgage banks), the government could offer targeted tax incentives or tax deductions, limited by time, size of institution, or activity volume.

None of these approaches are used today in Turkey; they are worth exploring.³⁶

³⁶ Gürlesel 2007.



B. A subsidy approach. Interest rates to be quoted to and paid by borrowers can be lowered, using any of the following subsidies to the interest rate:

- Lending by government at the government's risk rating, not the venture's
- Government reimbursing development or origination costs normally paid in rate
- Making the interest payments received by the lender exempt from taxation ('tax-exempt loans')
- Allowing individual borrowers to deduct their interest payments against income taxes³⁷
- A cash payment direct to the lender ('interest reduction subsidy')

The results can be summarized schematically as follows:

Market approach	Affordable approach
+ Base rate (treasury or long-term government security)	+ Base rate
+ Market risk premium	+ Government lower risk premium
+ Yield required to pay for up-front costs	- Interest subsidy (appropriated or tax)
= Loan rate charged to the consumer	= Loan rate charged to the customer

Any or all of these modes have been successfully used elsewhere in the world.

15. Rental subsidy. As the rental sector expands, it will generate housing affordable to market renters, and will tend to leave behind affordability for low-income renters. This happens in every stable market, so long as the population is growing. As a result, there is always a level – in the US, it is households whose income is 60% or less of median – below which households cannot afford housing if they pay a 'normal' share (in the US, 30%) their income for rent.

Government's solution is to provide a rental subsidy to those households. Typically the subsidy is the difference between what the poor household can afford, and the market rent. In the US, the subsidy is called Housing Choice Vouchers (or sometimes called Section 8); in the UK, it is Housing Benefit.

Rental subsidy is expensive, and it tends to be an ongoing cost. Although not the most urgent need, it should be part of Turkey's long-term vision.

F. Regulation and oversight

Regulation and oversight come into effect only when there are entities to regulate. Typically these are legally-affordable bodies that own and operate housing.

³⁷ This does not lower the loan's quoted interest rate, but is readily understood by customers as lowering their net out-of-pocket cost. It should be no surprise that the mortgage interest deduction is the single most popular Federal 'tax expenditure' (as they are known) in the US, accounting for over \$70 billion annually.

16. Affordable co-operatives and rentals. Many nations, from China through India to the US, use low-income or limited-equity co-operatives as a means of assuring ongoing affordability. The idea is that a building is occupied solely by a group of people all of whom meet some criteria for affordability – typically, low or very low income. Occupancy costs or resale prices are strictly controlled through documentary agreements, sometimes recorded against the legal title or otherwise publicly enforceable.

The US, UK, and South Africa all have affordable rentals and co-operatives in a form readily adaptable to Turkey. India and China have home-grown versions using the same principles.

Turkey's history with co-operatives is clouded and complex, so it may be appropriate to develop another name, or a model such as housing associations (UK and US).

In any case, Turkey needs to create the legal framework for mission-oriented owners, be they controlled by the residents or by a public charity.

17. Regulation. If government resources have been used to buy affordability over many years, there is always a regulatory function required.

These agreements are not always enforced as they should be – people in a co-operative develop their own culture and economic expectations, which over time tend to diverge from those intended by the programmer designers. As a result, the existence of a legal form of affordable ownership or rental always causes the eventual creation of a suitable regulatory body.



Section 6. Recommendations

Our recommendations flow from the preceding review. They, in turn, group into five broad goals:

- Shift government more to demand-side (financing customers) and away from supply side (financing developments)
- Catalyze private mortgage banks
- Increase the municipal role in land release and zoning
- Link and encourage urban improvement and transformation
- Develop a housing-association model for affordable rental

A. Core principles for Turkey's housing finance

For Turkey to be competitive with developed nations in Europe and the Americas, Turkey needs to improve its housing – total supply, housing quality, and housing affordability – which lag behind other sectors of the Turkish economy relative to these countries to which Turkey aspires.

Despite the recent price drops, the long-term financial trends for Turkish housing are very favorable; we can expect consistent real (inflation-adjusted) increases in property values and land values as increased financial velocity (via mortgages) enables ordinary Turkish families to buy larger houses and pay for them with lower-cost longer-term financial instruments.

Improving Turkish housing across the board will not only improve the Turkish economy broadly but also lead to an increase in overall Turkish household income and better quality of life, as people have more flexibility to buy or rent housing they need.

Turkey should also **emphasize urban development**, because that is where the growth will be, and that is where demand is rising faster than supply.

The four main Turkish housing areas that will benefit from new or changed roles are:

1. Housing finance. Although the new mortgage law enables banks and mortgage originators to create long-term financing products, concerns about property quality, title and transfer, and long-term interest rates will tend to hold back the rate of experimentation and innovation. In Turkey's peer and model countries, government

housing banks play a direct or indirect role in facilitating housing innovation by assuming these 'non-commercial' risks.

2. Housing production. Housing's strong development and construction industries assure that new housing will be built if there is land and financing made available. With most land under government control, the critical roles are release of land from national to regional or local government, and then using zoning to develop high-density, mixed-tenure and mixed-income properties in residential areas.

3. Housing quality. Because urbanization is occurring rapidly in Turkey as in many of its peer countries (such as Korea and Mexico), many new urban homes are informal or self-improved. These housing structures are of questionable quality and significant earthquake risk. While it might be desirable to demolish and rebuild at higher density (see next point), in practice this cannot happen quickly enough to keep up with all the demand. Better will be to create financing products that encourage home owners and building owners to renovate and reinforce their structures, in exchange for formalizing title and bringing them into the recorded system.

4. Transformation of urban areas. As Turkey's population grows and urbanizes, housing and residential density simply have to rise in Turkey's cities. Like many other nations facing similar rapid growth (e.g. Mexico and China), Turkey will have to confront the necessity for taking low-density areas, demolishing all the existing housing, building new higher-density formalized housing, *and granting the residents a genuine right to return*. Some successful experiments are already under way along these lines.

B. Shift government more to demand-side financing: TOKI becomes SHF

TOKI has vast powers, an enormous financial capacity and net worth, a strong credit rating, and forward-thinking leadership. It can do much more, and should do much more, but as part of that, should do less in the area of direct development and construction.

1. Move TOKI to the demand side (customers), not supply side (new homes).

Government entities acting in housing can be on either or both sides of supply and demand:

- **Supply-side entities** increase the number of housing units by being developers, builders, or partners with developers or builders.
- **Demand-side entities** increase consumers' ability to obtain housing by offering household-based financial products that the marketplace cannot or does not.



Oversimplifying a bit, supply-side entities believe that if you build more homes, the market will become more affordable, whereas demand-side entities believe that if you increase affordability, the market will build more homes.

Up to now, TOKI has been principally a supply-side entity, with a particular focus on building new high-rise flats (principally for ownership) throughout the country, and a recent initiative on second homes in growing coastal areas. While these are useful roles, they are not what Turkey needs most, nor where TOKI can do something the private market cannot.

On the supply side, the only role government can play uniquely well is that of land release and land zoning, where more should be done. When it comes to new or existing homes, TOKI should shift to the demand side, assisting the buyers and renters to acquire homes. This will also shift TOKI from competing with the development community into being its essential partner.

2. TOKI should become primarily a financier, not a developer. Turkey lacks not the ability to build new homes – it has that in plenty – but rather, the ability to finance their purchase.

The new mortgage law is a critical step, but it is only a step. The ideas expressed in the mortgage law must be turned into actual money, via marketplace behavior. This means Turkey must and will develop new loan products (particularly long-term debt), new lending entities (mortgage originators).

Seeds of these changes are stirring in Turkey now; but they need to evolve faster. In this, government can and should play the essential role of leading the market by taking on new risks. In Turkey, the principal elements holding the market back are:

- Risk that interest rates will rise long-term because they will chase rising long-term inflation.
- Risk that properties cannot be foreclosed upon and resold by lenders.
- Lack of a long-term capital provider that will either make loans directly, buy them once made, or securitize asset pools once lenders have developed a book of business.

Government is the logical counterparty to take on these risks. Indeed, the emergence of a national housing bank or something like it has fueled the growth of housing production and housing affordability in nations as diverse as:

- The US: FHA (www.hud.gov), Fannie Mae (www.fanniemae.com), Freddie Mac (www.freddie.mac.com).
- Thailand: Government Housing Bank (GHB, www.ghb.co.th/en/index.html).
- Mexico: Sociedad Hipotecaria Federal (SHF, www.shf.gob.mx).

3. Start by securitizing the current loan portfolio. TOKI has a very large loan portfolio that is ripe to be sold or securitized. TOKI can use its strong credit rating, and in fact produce a bond issue with a credit rating even higher than its own if it provides collateral whose face amount is greater than the bond issue.

This should be an immediate action once the asset-backed securities (ABS) regulations are issued.

B. Catalyze private mortgage banks

Turkey has started the process with the new mortgage law, and the authorization of mortgage banks. But that is not enough; the Turkish government and Turkish finance entities, most especially TOKI, should incubate and develop them through complementary activities.

Turkey's goal should be to follow Mexico's example. Within the next 5-10 years, establish TOKI as principally a housing financier akin to SHF, and build up mortgage banks like the Mexican SOFOLs.

1. Create products that complement the market. Turkey has strong banking and construction sectors that are fully capable of innovating on both the supply and demand side. However, as noted in the previous section, there are macro risks that most banks will find 'non-commercial' in the sense that they are absent from other forms of non-housing commercial lending.

Because banks will enter new spaces only when the new spaces are profitable (on a risk-adjusted basis), any sector like housing that faces additional risks will be entered last, **unless** government catalyzes intervention either with subsidy or with risk mitigation.

Risk mitigation is the easier (less costly) and more appropriate (greater scale) course and a natural function of government. Products that suggest themselves include:

- **Direct government loans bought from mortgage originators.** Mexico's SHF, and Thailand's GHB all offer useful examples.



- **Credit enhancement of private loans**, with first loss taken by the originator. The US's government sponsored enterprises (GSEs), Fannie Mae and Freddie Mac, have successfully pioneered the market here.

C. Land release and zoning: increase the municipal role

We recommend that Turkey strengthen the role of municipal government and develop mechanisms whereby local government can deploy land and zoning in exchange for affordable homes, by allowing private developers to build market properties so long as they set aside a portion of the homes as affordable.

1. Define rules whereby municipal government can obtain nationally owned land for urban development and regeneration. Real estate markets are local and municipal, and property development always involves local stakeholders much more than national ones.

For forty years, the US has had a national agency handling housing and urban development, and if those forty years have shown anything, it is that a national government does a poor job of local and municipal land use allocations. The UK has experienced a similar arc. National government is too far removed from local markets, too prone to the establishment of standardized approaches. Indeed, the great policy failures in the US and UK – public housing – have used a standardized national funding and delivery concept and imposed it from coast to coast.

Municipal government is in the best position to negotiate for the right kind of affordable housing, and the maximum amount of affordable housing, from any given land development transaction.

Allowing municipal government control over valuable land carries risks of misuse, poor decisions, exploitation by the private sector, and improper influence. Checks and balances, reporting and penalties, will be required.

2. Address gecekondu by creating a national pilot in demolish-and-rebuild with resident support. As Turkey's population grows and urbanizes, housing and residential density simply have to rise in Turkey's cities. Like many other nations facing similar rapid growth (e.g. Mexico and China), Turkey will have to confront the necessity for taking low-density areas, demolishing all the existing housing, building new higher-density formalized housing, and granting the residents a genuine right to return.

Elsewhere in the world, HOPE VI in the US and Dharavi in India show that even the poorest residents can become active participants in neighborhood redesign. UK stock transfer uses similar principles. In Turkey, the case of Portakal Çiçeği Valley offers a pilot that can be tested elsewhere.

D. Link and encourage urban improvement and transformation

1. Develop home-improvement and earthquake-reinforcement loans for origination through mortgage banks. The preceding recommendations concentrate on increasing new supply – more homes built, of good quality, in growing urban areas. Still, however much Turkey increases its production of new homes, Turkey’s large cities have vast areas of self-built or self-improved medium density homes and flats. Although some of these properties can be demolished and rebuilt (see next recommendation), the scale of such neighborhood-level improvement will lag far behind the growth of cities.

A better approach would combine improving the homes’ physical condition with formalizing their title and ownership. These would be loans to informal property owners who:

- Use the proceeds for earthquake reinforcement or structural upgrades.
- Secure a registered and formalized title to the property as a precondition of receiving the loan.

This product could be originated through mortgage companies and banks, and sold or placed directly with TOKI. It will be higher risk than a new construction loan, but it will reach many more households. It raises some issues and has some complications and risks; thus it requires investigation of Turkish law that is beyond the scope of this strategic country assessment.

Nevertheless, it is essential to find a means of allowing owners of informal or unregistered housing to formalize and improve their homes. There are too many of such homes and homeowners to ignore. This is not a gecekonu amnesty, of which there have been no new ones in 21 years; it requires a long period of occupancy and ownership, and a purchase investment by the home owner.

2. Develop policies to improve existing informal neighborhoods. Some neighborhoods of low-density gecekonu can be comprehensively redeveloped through resident and community participation (a critical opening step), then relocation, demolition, up-zoning, new construction (higher-density, better quality), and a guaranteed and actually accomplished resident right to return³⁸ to the newer, better housing thus created.



Successful examples include:

- US, Atlanta: public housing redevelopment
- Turkey, Ankara, Portakal Çiçeği Valley: Mixed use urban transformation project with community participation
- India, Mumbai, Dharavi's proposed slum redevelopment

This approach is in the tradition of classical urban planning, and will necessarily involve local and regional government as the principal actors. It will require effective coordination between national government (TOKİ and Milli Emlak) to release land and allow local and regional government to manage the overall development plan.

E. Develop a housing association model for affordable rental

1. Create a Housing-Association model for long-term affordable rental. Even as Turkey rightly places great emphasis on home ownership – as does every nation – rapidly urbanizing countries also need a large supply of quality affordable rental housing, which increases labor mobility, encourages household formation (an easier tenure to start and to end, less committal than home ownership), and encourages efficient consumption (people are not so anxious about buying a home). At the same time, leaving this entirely to the private market leads to over-crowding, under-maintenance, and slums. Nor is rent control any help, as examinations of downtown Cairo and downtown Mumbai will demonstrate in an instant.

The ideal model is long-term regulated affordable rental, which can be achieved via three distinct ownership models:

- Private-public, with for-profit owners. The dominant form in the US.
- Private-public, with non-profit owners (housing associations or cooperatives). Dominant in the UK, emerging in the US.
- Pure public, as in social housing or public housing. Legacy examples abound in, among others, the US, UK, and Egypt.

Of these, the most suitable for Turkey appears to be the Housing Association model – a professional, regulated, non-for-profit entity, usually with a well-defined geographic service area (typically neighborhood or metropolitan). The UK system is working well and offers numerous examples and principles worthy of study.

38 In some cases, the right-to-return can be accomplished through a rolling redevelopment, as has proved successful in US public housing demolition under HOPE VI, and in railway relocation in India's Mumbai.

Section 7. The Opportunity on the Demand Side

A. Summary

In our country assessment, AHI recommended that Turkey create demand-side affordable home financing - helping customers afford to buy homes, rather than helping build cheaper homes on the supply side. Turkey could do this now, via new specialized mortgage loans offered by TOKI. Using terms that should be achievable in the marketplace and profitable for the government, TOKI could make owning a home as much as 33% cheaper for qualifying households, bringing mortgage-financed homeownership within reach of as many as 3,200,000 additional Turkish citizens.

If this demand-side assistance were combined with a supply-side incentive - land contributed free by government, in exchange for additional affordability - costs could be lowered a further 20%, adding a cumulative total of 6,300,000 Turkish urban citizens.

These results should be achievable without direct government cash subsidy - instead, government (TOKI) should make money on the loan program. Its sole contribution would be land, not requiring cash.

Such a vast increase in affordable financing could be used in a targeted way to support and incentivize earthquake-proofing, or to facilitate bringing informal housing into the formal marketplace.

B. The opportunity on the demand side

Homeownership affordability in Turkey is substantially constrained by financing unaffordability. Homeownership financing is relatively expensive, with current interest rates just over 25% annually. Loan terms are short (compared with other developed nations), at only ten years (120 months). The result is that, using typical customers who can pay 30% of their income for mortgage payments, and who put down a 20% deposit, only about 7% of Turkey's urban population can afford a market home.

The new mortgage law creates a legal framework that will allow private companies to expand into housing finance; this is an important development and over time will grow Turkey's mortgage market and housing affordability. Private companies, however, will start at the top of the income pyramid and work down, so improvements in affordability will take some time to achieve.



A better approach to jump-start mortgage finance and affordability, used in the Mexico, Thailand, and elsewhere, is for a government lending agency to offer long-term financing on terms more favorable than the market, and target these new loan products to particular customer segments: people whose income is below a stated ceiling, or homes with affordable prices.

B1. In concept. To illustrate the concept, we imagine the following loan program:

TOKI Affordable Home Loan Program
(hypothetical example)

- TOKI is the primary lender.
- TOKI makes direct loans (like Mexico's SHF or Thailand's GHB) to eligible homeowners.
- TOKI funds its loan pools through periodic bond sales.
- Eligible homeowners must be at or below stipulated income levels.
- Eligible homes must be mortgageable, with good title, and an approved structure.
- Loans are the same term as market (10 years), level monthly payment.
- Interest rates are fixed at the government's cost of capital plus a spread large enough to assure the program is profitable to TOKI.

As discussed below, this program is well within TOKI's current capacity.

Under this simple program, TOKI could create precisely targeted affordability (assuming accurate administration and program compliance) through its specification of:

- Eligible Households
- Eligible Homes

Precise focus is useful for it allows piloting, experimentation, and the ability to control or inhibit deadweight effects (like the market raising its prices as fast as the government creates new affordability).

B2. The affordability analysis. Our affordability and impact analyses are provided in Exhibits 1 and 2.

Eligible households. For this analysis, we have focused on Turkey's urban population, which in 2004 represented roughly 45,000,000 people living in cities of 20,000 or more, with income distributions as shown in Exhibit 1.

Financing alternative. For the base-case alternative, we used a simple case of the government offering financing at a seven percent real (after inflation) interest rate, or 17.0% with a 15-year term (a bit longer than the conventional 10-year term).

The affordability and household analysis is calculated straightforwardly in Exhibit 2. With the interest rate is cut by a full third (25% to 17%), and the term extended, the program

reduces monthly payments by one third, from 2.3% of loan balance per month to 1.5% of loan balance monthly.

B3. The further impact of lowering interest rates for selected populations. The real gains to be made in demand-side finance occur if the interest rate is cut substantially. Since TOKI is an instrumentality of the government of Turkey, it could make a profit at interest levels only a small amount above long-term inflation, such as 12-13%. Such a move, if targeted to buyers and not properties, would not inflate housing prices. (See Risks below.) Rather, it would extend affordability to a well targeted income band of Turkish citizens.

We are not showing such a dramatic result. Nevertheless, for selected populations, and used with discretion, targeted lower (but still profitable) interest rates are an enormously powerful tool.

C. The opportunity on the supply side: leveraging land cost

Up to now, the Affordable Home Loan Program imagined above is purely demand-side - it focuses solely on reducing the monthly cost for homeowners to buy houses on the open market. It could be combined with a supply-side approach - namely, contributing urban development land for free, with the resulting savings passed through in the form of lower home prices.

Specifically, we envision a program that might be called 'Urban Homesteading,' with the following features:

Urban Homesteading
(hypothetical example)

- New greenfield urban land owned by the government (Milli Emlak, TOKI) is provided to municipal government at zero cost.
- (A variant would be greenfield obtained by clearing gecekondu sites in anticipation of rebuilding for affordable housing, giving residents a right to return or a right to buy the Urban Homestead homes.)
- A municipally-chosen developer builds new-construction housing on the site.
- Homes are sold under the Affordable Home Loan Program, with AHLP financing provided by TOKI.

As discussed below, this program is well within TOKI's current capacity.

Based on national statistics of roughly YTL 9,200 of land cost per flat of 60 square meters, on Exhibit 3 we illustrate the value - in a new construction or gecekondu formalization setting - of combining free land with an Affordable Home Loan Program.

The results are dramatic: land is 20% of the house price, and if it is removed, and the loan terms are cheaper, then the cost of occupancy drops 46% -- that is, the new homeowner is paying



slightly over half the cost of a market home in the same location. Achieving this at scale (which will be difficult, as available urban land is limited) would bring mortgage finance within reach of 21% of all Turkey's urban households.

D. Feasibility

TOKI could implement the Affordable Home Loan Program. Everything about the Affordable Home Loan Program is within TOKI's legal, financial, or administrative capacity.

- **Legal.** Affordable Home Loans will be legal under the new mortgage law. TOKI is authorized to make mortgage loans and has been making loans under its new construction/ development programs.

- **Financial.** TOKI has a strong balance sheet (as evidenced by its Moody's BBB rating; the nation of Turkey has a BB- S&P and Fitch rating (Moody's Ba3), and could issue its own long-term bonds. Many observers have recommended that TOKI put out a large bond issue, to liquefy its current book of business of performing loans. Bond packages of affordable home loans have found ready acceptance around the world (e.g. in the US, where state housing finance agencies are independent bond issuers with ready market takeup).

- **Administrative.** TOKI has proven already that it can administer and collect a book of business with loans more complex than home loans (construction loans); further, TOKI has been servicing its own loans on homes it has developed and sold. Should the Affordable Home Loan Program take off and its volume increase rapidly, administration of loan servicing could be contracted to existing and newly established mortgage companies that become TOKI's registered agents. Such loan servicing models are a feature of every developed nation. (Care must be taken to assure that servicers are both competent and properly incentivized.)

E. Risks

The foregoing analysis has been done entirely in the theoretical world of economics, where actions happen promptly and there are no market side-effects. In the real world, programs have risks: of failure, of success, and of administration.

- **E1. Risks of failure.** Construction and development risk negligible. Since the program is predicated on existing homes, there is no construction risk, and indeed minimal development risk.

Defaults and losses after default. The principal ongoing risk is default. Default risk is substantially mitigated because the homes themselves would be market quality, sold at a market price; if an affordable homeowner defaulted and were foreclosed, the home could - as a last resort - be resold

to a market homeowner in the ordinary course of business. Although one could imagine higher-than-normal rates of delinquency, losses given default should be modest. If losses crept up, credit standards could be tightened, or rate spreads could be increased (at some loss of affordability).

Experience in Mexico and Thailand suggests that net collection losses are minimal. This is useful grounds for further study by TOKI.

E2. Risks of success. Realistically, the program's greater dangers are in success, even runaway success. There are several possibilities, all of which should be manageable with some oversight.

Prices accelerate as fast as affordability does. Markets move faster than government. Any time government creates a program whose effect is to increase affordability on a particular asset, the market price of that asset rises. The result is a new equilibrium where people pay less per YTL of loan, but more YTLs per home, resulting in the same effective net monthly payment - no advance in affordability, and instead a transfer of government benefit into the pockets of developers and landowners. This is a significant risk and its mitigation should be a principal focus of any actual program design.

There are some ways to mitigate this risk, at least on a broad scale.

- *Prohibit AHLP application until after purchase and sale agreement. The idea is simply that the home seller does not know whether the home buyer will be AHLP eligible, and should not be allowed to know until after the price is agreed.*

- *Keep the AHLP volume small. If AHLP eligible households come to dominate the market, they can skew it. So long as they represent only a fraction of the buyers, their price-inflationary effects should be modest.*

- *Couple the AHLP with particular greenfield developments. AHLP loans could be coupled with particular greenfield affordable housing developments, or financed only by municipal developers or co-developers.*

Applicants and home sellers connive on home prices. This is a variant of price inflation. The seller agrees to a market price, only discovering later that the proposed buyer is an AHLP household, whereupon the seller suddenly discovers concerns about the buyer's credit-worthiness that can only be satisfied if the buyer makes an additional side payment.

Buyers should not agree to these payments, of course; and any normal closing certifications will require representations from both seller and buyer that no undisclosed payments are being made. Nonetheless the risk will persist and will require constant vigilance.



Applicants falsify their eligibility qualifications. Any program that becomes popular attracts 'free riders' and 'mockingbirds' who want to gain the benefit for themselves even though they do not deserve it. Home sellers will have no interest in disqualifying AHLP buyers and will look the other way on dubious or downright unbelievable claims of income limitation or otherwise.

Applicant eligibility verification is always a governmental function, to be performed either directly by government or by approved agents (e.g. mortgage originators). While it may seem superficially that direct government verification is better, private contractors can be made more accountable since renewal of their license could be predicated on them having no or minimal non-compliance reports.

E3. Risks of administration. There seems little doubt that this program would be highly successful; with that success come risks of administration, both in awarding resources and in monitoring compliance over time.

AHLP is captured for political patronage. Throughout the world, throughout the decades, many a program that confers a housing benefit via a local government agency has become prone to patronage: the mayor's or city councilor's friends, relatives, contributors, and political supporters all just fortuitously rise in the waiting list and get the choice flats.

External auditing by a higher level of government is prudent, if not mandatory.

People informally 'flip': they resell or sublet. Many people who get a government benefit for one type of household expense - in this case, housing - decide they would rather have cash, so they immediately resell the conveyed benefit to someone else. Since the new buyer is almost always ineligible, the transaction is informal, so the home seller takes a very large discount. Worse, from the government's perspective, a large government cost translates into only a modest benefit to the recipient household, and the long-term benefit - affordability for those who need it - is utterly destroyed.

The problem is intrinsic to government-managed incentive programs. We have seen it around the world: in the South African birthright home purchase subsidy; in the Sao Paulo, Brazil resales of Cingapura high-rise flats; and even in some early experience with Morocco's Villes sans Bidonvilles. It has also been a common feature of US and UK public housing (council housing) or inclusionary zoning schemes.

Government never enforces. When a reforming government with a history of lax administration introduces a new program, many stakeholders are skeptical that it will ever enforce. They hear 'cheap loans,' think 'free housing,' and act accordingly. Governments with an

arsenal of enforcement rights can find themselves losing all of them through inattention (e.g. US public housing evictions). Some examples even rise to the level of organized civil disobedience and outright mass refusal (e.g. Gateway in South Africa).

Compared with many countries, Turkey is much less prone to this risk. There is every reason to think that TOKI or any other administrator would be consistent and prompt in enforcing remedies, including foreclosure (and resale to the next qualifying buyer). Such enforcement is important, especially at the beginning, to establish a tone.

F. Some program possibilities

The AHLP concept is powerful and flexible. It could be inaugurated in several different ways. All these pilot approaches would allow rollout of the concept and development of a track record, as well as a chance to experiment with different features and learn useful lessons for a national rollout.

F1. Particular cities as a pilot. The program could first be tested in several cities across Turkey. Good candidates would be cities with (a) rapid urbanization, (b) a good supply of either available land or well-built gecekondus, and (c) an effective municipal government.

F2. Developer partnerships, end-loan takeouts. Similarly, TOKI could make partnerships with selected for-profit developers to do large greenfield subdivisions, a portion of which would be pure market, another portion AHLP loans or Urban Homesteading apartments.

F3. Offer such a loan upon completion of gecekondus formalization. AHLP financing could be combined with gecekondus formalization, by offering qualifying households AHLP end loans if they take all necessary steps to bring an informal home into the formal system: earthquake proofing, title conformance, full payment of all local taxes and filing fees.

F4. Study Mexico and Thailand. These two nations have a decade of experience with effective demand-side programs, including origination and administration, and are the natural starting point for developing TOKI's program. The US and Canada offer mature examples (FHA and CMHC) of successful direct government lending through correspondents.

G. Conclusion

Turkey has a huge opportunity to jump-start mortgage finance in a targeted way that will expand mortgage homeownership affordability for millions of Turkish households. TOKI is ideally placed to make this move to the demand side, and can do so without sacrificing any of its current activities, while making money for the Turkish government, and without distorting markets.

TOKI should seize this opportunity.



Affordable Housing in Turkey: Country Assessment and Recommendations

Income distribution, Turkish households in large urban areas

(Population of 20,000 or more)
Data is estimated as of September, 2008

	Income Group	A	B	C1	C2	D	E	Total
2004 act.	Income	41,714	19,196	11,617	8,160	5,566	3,982	
2008 est.	Income	58,883	27,097	16,398	11,519	7,857	5,621	
2004 act.	Population	1,081,700	3,464,040	8,445,467	10,642,316	17,099,355	4,641,928	45,374,806
2008 est.	Population	1,125,621	3,604,694	8,788,387	11,074,437	17,793,657	4,830,409	47,217,202
	Percent of Pop	2.4%	7.6%	18.6%	23.5%	37.7%	10.2%	

TOKI - 2004 Housing Finance For Low Income Groups in Turkey

2008 Estimates based on:

http://ddp-ext.worldbank.org/ext/DDPQQ/showReport.do?method=showReport	
Population growth (annual 2005-2007)	1%
2008 Estimated Urban Population	47,217,205
Average Inflation index 2004-2007 (12%, 7%, 9%, 8%)	9%
Inflation estimate 2004 to 2008	41%

Affordable Home Loan Program: Affordability calculations

Data is estimated as of October, 2008

Element	Market (YTL)	Affordable (YTL)	Source
Cost of land per home	9,225		Estimated at \$250 per square meter, with a 2.0 FAR. Sources: Dr. Cem Berk, Soyak.
Construction costs per home	36,000		Estimated at 600 YTL per square meter, with 60 m ² average flat. Sources: Dr. Cem Berk, TOKI.
Total (market) cost of home	45,225		www.toki.gov.tr/english/l.asp
Down payment (deposit)	9,045		Assumed to be 20%.
Amount to be financed with loan	36,180		
Interest rate, market loan	25.19%		www.GarantiBank.com/mortgage/mortgage_interest_rates.html
Interest rate, Affordable Home Loan		17%	Assumed to be 700 basis points over long-term inflation, based on interviews with market makers.
Term of typical loan (in years)	10	15	http://faculty.darden.virginia.edu/warnock/papers/WarnockWarnock_JHE2008.pdf
Debt service constant (annual)	27.5%	18.5%	Calculated with monthly amortization.
Required monthly payment	YTL 828	YTL 557	Affordable payments are 33% less than market.
Debt service as percent of income	30%	30%	International standard for affordability.
Income necessary to afford loan	YTL 33,120	YTL 22,273	Calculated from above.
Percentage of population	7%	14%	Calculated from income distribution (Exhibit 1).
Total urban population	3,439,566	6,667,497	
Total urban households	860,000	1,667,000	Assuming 4 people per household.

Section 8. Exhibits

I. TURKEY COUNTRY PROFILE, STATISTICS (REVISED JANUARY 2008)

		Source & Date	Notes
DEMOGRAPHICS			
Population	71,158,647 70,586,256	CIA World Fact Book, 2007 Turkish Statistical Institute, 2008	Rapid increase in urban housing is illustrative of the movement of labor into service-orientated sectors. In January 2007, 49% of the labor force was employed in services compared with only 26% in agriculture.
No of households	15,671,000 18,195,000	Euromonitor International from National Statistics, 2006 Turkish Statistical Institute 2007	
% Urban (1)	70.5%	Turkish Statistical Institute, 2008	49.75 Million as of December 31, 2007
TENURE MIX			As percentage of urban Households
% Urban Households	100	Census 2000	10,373,863
% Home Ownership	55.8% 74% 68%	Census 2000 Euromonitor International from National Statistics, 2006 RJ's Real Estate Report, 2007 European Real Estate Association (ERA), 2007	6,205,927 11.6 Million as of 2006
% private rental	31.6%	Census 2000	3,282,853
% social rental	5.5%	Census 2000	568,192
% public housing	2.2%	Census 2000	228,085
% slum/ insecure tenure		GYODER	In 2005, total house stock in the urban area was 15.1 million, 34.4 percent of which was unauthorized (illegal or unregistered) housing. Most of those 5.1 million unregistered houses are slum or insecure tenure. Some "home ownership" households own slum or insecure housing.
INCOME DISTRIBUTION			
% < \$1 per day, <\$2 per day	3.4%< \$1 18.7%< \$2	UNDP Human Development Report, 2004	
Gini coefficient	42 38	CIA World Fact Book, 2003 Turkish Statistical Institute 2005	
MACROECONOMICS			
Exchange rate/ US\$	1.4286 1.1700	CIA World Fact Book, 2006 Central Bank of the Republic of Turkey	
GNI per capita	\$5,400 \$5,559	World Bank, 2006 State Planning Organization 2007	
CPI inflation rate	9.5% 8.4%	World Bank, 2006 Turkish Statistical Institute 2007	



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		Source & Date	Notes
Financial depth (M3/GDP)	M3=319,366,193,000 (YTL) GDP=914,875,440,000 (YTL) M3/GDP=61.91%	Central Bank of Turkey, 2006	
Country credit rating	S&P: BB- (stable) Moody's: Ba3 (stable) Fitch: BB- (stable)		Country ratings as of October 11 th , 2007
HOUSING POLICY			
Housing policy led by			HDA - Housing Development Administration (TOKI) (Legislation and regulations concerning human settlement: State Planning Organization, Ministry of Public Works and Settlement, Ministry of Tourism, Ministry of Environment and Forestry, Institution of Specially Protected Areas) (For details, see: UN Turkey Housing Settlement Document)
Key housing laws	Law # 2985 ("Mass Housing Law" in 1984)		Law" in 1984) With regard to legislation in this field, the (City) Planning Law, No: 3194/1985; the Gecekondu (Squatter Housing) Law, No: 775/1966; the Mass Housing Law, No: 2985/1984; and the Public Housing Law, No: 2946/1983 are the main laws governing housing policies in Turkey.
Housing budget/GDP	733 B YTL		Ministry of Public Works and Housing 2007 Budget
Subsidies available: ■ Eligibility ■ Amount ■ Terms		"Gecekondu" Law, 1966	Eligibility: Low income (less than 38,000 YTL per year for 1-2 people households and an additional 4,000 YTL for each additional household member), not to have house or land to build house (both the person and his/her spouse), not being a member of a housing cooperative, not to have benefited from this law or Social Security Institution's loan law. Releasing loans with a maturity of up to 20 years or giving lands. (Is this still the law in effect? Any changes?)

		Source & Date	Notes
National Housing Objectives Set			"Planned Urbanization and Housing Campaign" between 2003-2007 covering the "gecekondu" problem and providing affordable housing for low-income people. TOKI's goal for 2007 is to construct 250,000 dwellings (which is already overachieved with 500,000 new dwellings)
DEMAND & SUPPLY			
Annual household formation	350-400K per year	Raymond James Turkish Real Estate Sector Report, 2007	GYODER estimated numbers used in the RJ Report
Backlog in supply	2.5 M	TOKI presentation, 2007	Estimate number.
Annual demand for housing	650-700K new homes needed annually	Raymond James Turkish Real Estate Sector Report, 2007	GYODER estimated numbers used in the RJ Report
Annual production—formal (construction permission)	569,154	Turkish Statistical Institute 2006	
Formal basic house construction cost/ m2 (urban)	Estimated at 250-300 US \$/m ²	Earthquake Engineering Research Institute, 2003	Cost for reinforced concrete frame building with masonry infill. The majority of Turkey's urban population lives in multi-story apartment blocks constructed of reinforced concrete with masonry infill.
FORMAL FINANCE			
Housing loans	30.8 billion TL	Central Bank of the Republic of Turkey, 2007	
Housing loans / GDP	3.8% 4.76%	CBT, Raymond James, 2007 Central Bank of the Republic of Turkey, 2007	Excepted (2007): 4.6%
Mortgage finance to GDP Max. and average LTV	%75 and 50%	Raymond James Turkish Real Estate Sector Report, 2007	
Breakeven & minimum available mortgage size US\$ Average available mortgage size US\$	45,000 YTL	Central Bank of the Republic of Turkey, 2007	
Max and average installment to income	45% and 3%	Istanbul Capital Presentation @ Turkish Real Estate Summit VI	"Turkish Mortgage Market Profile" on page 13.
Maximum and average mortgage term	30 years and 7 years	Raymond James Turkish Real Estate Sector Report, 2007	
% of book fixed interest rate	95%	Banks Association of Turkey, 2007	



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		Source & Date	Notes
Average mortgage margin (retail rate less cost of funds)	1.5-2.5% yearly basis	Central Bank of the Republic of Turkey, 2007	
% of population able to access mortgages	less than 15%		564,000 people representing less than 15% of the total households.
Mortgage insurance available?	Not yet.		Insurance companies are working on mortgage insurance but it is currently not available. (Mid-and low-income families do not have mortgages yet!) Association of the Insurance and Reinsurance Companies of Turkey has a lot of information on it, and organizes conferences on this topic.
Main providers of mortgages			The leading banks in Turkey: Garanti Bank, Akbank, Isbank, Finansbank, HSBC, Fortis, Denizbank, TEB, Yapi Kredi
% mortgages market state retail			
Credit bureau exist and adequate?	KKB (Credit Registration Bureau)		Provides the exchange of information among financial institutions for the purpose of monitoring and controlling of consumer credits information (including credits cards). Created one of the most important and the largest databases of Turkey.
CAPITAL MARKET			
Bond market exists? (govt & corporate)	Government bond market exists but corporate bond market has still not developed.	European Commission Turkey Progress Report, 2005	The traded corporate bond market is virtually non-existent after it dried up in the mid-90'ies, but even before that, the market was small, but the Turkish Tax reforms are likely to support the re-emergence of the market.
Yield curve exists?	Yes	Central Bank of the Republic of Turkey	
NON-MORTGAGE FINANCE			
List instruments available Bibliography/ useful resources			

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 Turkish Financial Markets Info: <http://www.geoinvestor.com/countries/turkey/financial.htm>
 European Commission Progress Report: <http://abmankara.org.tr/guncel/2005ilerlemerapEN.pdf>
 Turkey: Open, Dynamic & Productive Finance Market: http://www.mondaq.com/article.asp?article_id=52320
 Turkish Statistical Institute: http://www.turkstat.gov.tr/PreTablo.do?tb_id=39&ust_id=11

2. TURKEY, VISIONS OF GOVERNMENT, SEVENTEEN FUNCTIONS

Overall concept. Turkey should aim for an affordable housing ecosystem that performs the functions seen in developed nations in Europe and America. Turkey's affordable housing strategic plan should reflect how we go from current activities to a robust ecosystem.

I Activity	II Long-term vision	III Turkey today/ in process	IV Changes required	V Foreign parallel
1. Zoning and land use	Encourage higher density with use, zoning	Larger cities have policy; TOKI has power to over-ride	Define more effective boundaries between municipalities and TOKI	Transferable Development Rights (TDR), India. Air rights, New York City. English Partnerships, UK.
2. Use of government land	Released either at market value (market properties) or low value (in exchange for affordability)	Released at market value, and TOKI competes for development rights (should not both referee and play)	Either a referee or a player; get out of being a player, and instead only release land, let others develop it.	
3. Trunk infrastructure	Government develops directly, formalizing informal neighborhoods, plus greenfield in growth path	Cities are growing much faster than infrastructure (including mass transit).		
4. Land development	Government offers master-planning at municipal level	TOKI is co-developer	Exit.	None
5. Urban regeneration	Demolish and rebuild unsafe structure, higher density, earthquake proofing	Government has made gecekondu upgrading a priority	Demolish-and-right-to-return, as practiced in Patros (sp?)	English Partnerships, UK.
6. Home improvement	Provide incentives for people to improve both the size and physical quality of their homes.	None.	Create vehicles for self-improvement in exchange for formalization/ taxation.	Patrimonio Hoy, Mexico: FONHAPO, Mexico. Energy loans and energy tax credits, US.
7. Title, formalizing	Rationalize and compensate based on incumbency plus investment upgrade	Unclear	Create a lending program to fund earthquake reinforcement and formalize	
8. Direct construction	Government constructs only that which no one else will	TOKI builds hospitals, schools	Exit.	
9. Low-cost production	Explore cost-lowering technology.	None.		Homex, Mexico: Moladi (SA) & Fuva Coppba (Vietnam).



2. TURKEY, VISIONS OF GOVERNMENT, SEVENTEEN FUNCTIONS (CONTINUED)

I Activity	II Long-term vision	III Turkey today/ in process	IV Changes required	V Foreign parallel
10. Direct lending	Government lends directly only where at a concessionary rate (e.g. 202)	TOKI finances its own developments.	Encourage the rise of Specialist originators (e.g. MortgageExpress)	HUD and FHA, US. Housing Finance Agencies (HFAs), US. <i>Sofoltes, Mexico.</i>
11. Credit enhancement	Government covers non-commercial risk (interest rate, macroeconomic), and special constituencies	None.	Lend government sovereign rate to long-term instruments (TOKI bonds).	FHA, US.
12. Securitization	Government facilitates and regulates	Asset-Backed Securities (ABS) by-law in development at Capital Markets Board.		Fannie/ Freddie/ FHLBs, US <i>Sociedad Hipotecaria Federal (SHF), Mexico.</i>
13. Financial innovation	Private banks are motivated to go down-market to LMI	None. Banks are high-end only.		Community Reinvestment Act (CRA), US. Financial Sector Charter, South Africa.
14. Interest subsidy	Government lends directly or uses its credit to lower rates	None. Rate spread is 700 bp (16% interest, 9% inflation).	Create special TOKI bonds, possibly tax-exempt	Tax-exempt bond volume cap, US.
15. Subsidy	Demand side and supply side are balanced	Nothing on demand side	First-time home buyer programs for key workers	First-time home buyer programs, US
16. Affordable rental	Co-ops or mission-oriented landlords (MOLs) predominate	None. Co-ops are discredited.	Reintroduce co-ops, MOLs as long-term owners, not developers	Housing associations, UK.
17. Regulation	Capital markets; MOL's; building standards	None.	Should be a TOKI function if TOKI is not developing	Housing Corporation: UK.

Additional Explanation to ‘Turkey Visions of Government, Seventeen Functions’ Tables

Turkey Today / In Process:

- **Trunk infrastructure:** Highways carry 95% passenger & 90% goods transport. Railway weak; used for long distance bulk commodity transport. Light rail/metros in 7 cities including Ankara & Istanbul. Important in urban transport. Extensions ongoing; slow. Water Service Strategy set by the State Planning Office every 5 years. Water provision through municipal & water utilities cooperation. 78.4% of urban population can access public sanitation, but only 64% have direct household connections.
- **Use of government land:** Law no: 5273 integrates process of land development & housing production to increase efficiency.
- **Title, formalizing:** The Directorate General of Land & Cadastre (TKGM) to establish an Information System (TAKBIS) to improve land registration & cadastre data/operations; will supply appropriate land-related information to private & public users, municipalities in particular.
- **Zoning & land use:** Amnesty laws have not prevented illegal housing construction, perhaps encouraged it.
- **Urban regeneration:** HDA grants credits for projects intended to transform squatter areas
- **Home improvement:** TOKI responsible for improving rural architecture, transforming squatter areas, & restoring historical architecture with respect to urban regeneration only.
- **Direct construction:** TOKI has holdings in various real estate companies, & a construction company.
- **Low-cost production:** Also need production techniques, materials & designs that will survive earthquakes.
- **Direct lending:** TOKI provides direct credit for homes from taxes on fuel, imports, monopoly products, and tourism. Funds remain insufficient (20% of the actual cost of housing).
- **Affordable rental:** Co-ops are discredited because they were used by big company employees to build their own houses. Municipal co-operatives (existing), apply to TOKI, if they have the land, if they want a project. No caps on resale prices, members are eligible to get the houses, have to pay.



Foreign Parallels:

● **Use of government land:**

English Partnerships, UK: Non-departmental government body with program to recycle & re-develop surplus public sector land. Maintains register of land with view to unlocking sites to deliver commercial space, community infrastructure and homes. Land sold by competitive tender for commerce, or by negotiation with housing associations/ Social Landlords for provision of low-cost purchase, shared ownership or rental homes for key workers and low income households.

● **Zoning and land use:**

- **Transferable Development Rights (TDR), India:** Certificate good for alternative buildable area, based on floor space, issued by a municipal corporation to compensate a landowner for take-over. Used for slum development.

- **Air rights, New York City:** Difference between the maximum permitted floor area on a lot and actual floor area is called “unused development rights.” Transfer of these rights from one zoning lot to another in special circumstances, usually to promote the preservation of historic buildings, or open space.

● **Urban regeneration:**

English Partnerships, UK: Is the national regeneration agency, a non-departmental public body. Partners include local authorities, the Housing Corporation, & development agencies. Works on best use of land, sustainable & brownfield development, best practices in design/construction & increasing private investment, workforce housing. Makes strategic plans for whole housing markets.

● **Home Improvement:**

- **Patrimonio Hoy, Mexico:** Communal savings & loan program for self-build housing market for low- & middle-income level, leveraging CEMEX’s distribution system. Provides materials & advice. Fast (1/3rd time), less waste, cheaper (2/3rd cost). Repayment rate 99%.

- **FONHAPO, Mexico:** Progressive loans for home improvement to low-income (below 2.5 minimum salaries) households.

- **Energy conversation loans/ grants, US:** Dept of Economic and Community Development (DECD) offers loans for energy conservation. The Department of Social Services (DSS) administers an energy assistance program that helps low-income homeowners make improvements in their home's energy efficiency. Energy tax credits, US: Home builders are eligible for \$2,000 tax credit for a new energy efficient home that achieves 50% energy savings for heating & cooling over the 2004 International Energy Conservation Code (IECC); \$1,000 tax credit with 30% energy savings. Homeowners are eligible for a 10% tax credit for buying qualified energy efficiency improvements; to qualify, a component must meet or exceed the criteria established by the 2000 IECC. This tax law also provides a credit for costs relating to residential energy property expenses.

- **Low-cost production:**

Homex, Mexico: Vertically integrated housing developer focused on social and medium level housing, constructing a thousand(s) of houses/area. Economies of scale. Drawbacks - sprawl, sleeper cities, over 2 hours commute, "ghettos."

- **Moladi (South Africa) & Fuva Coppba (Vietnam):** formwork technology for multi-units.

- **Direct lending:**

Federal Housing Administration (FHA), US: Part of HUD. FHA made a few direct loans via Section 202 to build low-income elderly/ disabled housing, to nonprofits with a 40-year note & mortgage. 1990 amendment changed statute to a grant program. Most loans secured by Project Rental Assistance Contracts (PRAC) - essentially Section 8 Housing Assistance Payment contracts, with an original term of 20-40 years & an expectation of HUD renewal for term of one to five years.

Housing Finance Agencies (HFAs), US: State-chartered independent authorities to help meet the affordable housing needs of state residents. Operate under board of directors appointed by each state's governor. Most HFA funding comes from federal government, directly (housing assistance) or indirectly (tax expenditures). Major Lending Activities:

- **Mortgage Revenue Bonds (MRBs):** State & local governments sell tax-exempt Housing Bonds or MRBs, and Multifamily Housing Bonds, using proceeds to finance lower income first-time homebuyer low-cost mortgages or production of affordable rentals.

- **HOME Investment Partnership:** Program is a federal block grant giving states & localities a flexible funding source for affordable housing needs. States get 40% total HOME



funding, & localities 60%, based on formula determining need. HOME used to finance innovative programs & projects - new build, rehabilitation, down payment assistance, & rental assistance—all targeted to low-income families. \$1 in HOME funds leverages over \$3 of additional investment in affordable housing.

Sofoles, Mexico: Non-bank financial institutions licensed to lend for housing and real estate development - essentially mortgage companies that originate and service loans, financed primarily by SHF. Some function similarly to microfinance institutions. Target low-income segment of market. New buys only.

● **Financial innovation:**

Community Reinvestment Act (CRA), US: Encourages depository institutions to help local communities' credit needs, including home ownership opportunities to underserved populations. Requires banks & thrifts to offer credit throughout their entire market area & prohibits targeting only wealthier areas with their services (i.e. redlining). CRA examinations conducted by federal agencies responsible for supervising depository institutions.

Financial Sector Charter, South Africa: The Charter has committed R42 billion to finance housing for low-income earners. The government will provide insurance for banks' low-income mortgage portfolio as well as underwrite more affordable mortgages.

● **Interest subsidy:**

Bond volume cap, US: Tax-exempt private activity bonds provide lower cost financing for eligible single/multifamily projects. As interest earned is exempt from federal taxes, debt has lower interest rates (depends on project and bond rating) than traditional financing Private activity bonds (PABs) finance projects that have a large private involvement but also significant public benefit. The Bond Cap is a ceiling on the amount of tax-exempt PABs a state may issue each year. Federal tax code authorizes each state an allocation of tax-exempt bond cap based on a state's population. Developers submit request to Bond Issuing Authorities who issue certificate

● **Credit enhancement:**

FHA, US: Incentivizes lenders to originate & execute loans to those with minimal credit histories, little money for down payments, etc. by guaranteeing the loans. FHA typically covers 100% of the loan against default. Homeowners & developers apply directly to FHA-approved lenders. FHA's programs cover buying, refinancing, & improvement to

single-family/ multi-family/ rental/ cooperative housing, & hospitals/ nursing homes. Down payments as low as 3% purchase price (requires monthly mortgage insurance 0.5% of loan amount). Fixed rate loans, Adjustable Rate Mortgage, Graduated Payment Mortgage, Growing Equity Mortgage.

● **Securitization:**

Fannie Mae/ Freddie Mac: Govt sponsored private shareholder-owned companies, operate in US secondary mortgage market. Tax-exemption & govt credit line, lets them ensure lenders have funds available to home buyers at low rates (also low-income & minority families). Promotes consumer education to improve financial literacy. Issue:

- *Mortgage-Backed Securities (MBS) to lenders to increase liquidity of investments.*
- *Debt securities to investors to improve distribution of residential mortgage investment capital.*

Federal Home Loan Banks (FHLBs), US: Regional cooperative of govt. sponsored private enterprises owned by member-financial institutions to provide costeffective funding (advances) to members for use in local affordable housing & community projects.

Sociedad Hipotecaria Federal (SHF), Mexico: Government entity creating standardized mortgage-backed securities market. SHF provides financial intermediaries (Sofols, banks) with a mortgage first loss partial guarantee for their mortgage loan portfolios.

● **Affordable rental:**

Housing associations, UK: Non-profit housing associations provide around two million homes for rent. Some receive government funding but majority of income comes from rents, which can be reinvested in market. Target customers have special needs (elderly, homeless, disabled).

● **Regulation:**

Housing Corporation: UK: Govt body that funds affordable housing development through the National Affordable Housing Program. It also regulates the Registered Social Landlord Sector.

● **Subsidy:**

First-time home buyer programs, US: Numerous city examples. Programs offer up to 10%, or a fixed amount, of down payment as deferred loan or outright grant. Typically for police, nurses & teachers.



**3. ILLUSTRATIVE PHOTOGRAPHS FROM LOW-INCOME AND ILLEGAL HOUSING:
ZEYTİNBURNU, ISTANBUL, TURKEY, 2008**



Registered Gecekondu



Old Gecekondu



Small Gecekondu near municipality



Small Gecekondu back yard with satellite dish



Low-income and illegal housing in Zeytinburnu



Gecekondu front yard



Gecekondu with stovepipe



One storey Gecekondu



One storey Gecekondu



Adding living quarters in Zeytinburnu



Gecekondu lean-to



Gecekondu between buildings



Gecekondu with terrace



Adding another storey



Gecekondu at corner of building



Gecekondu in front of tall building



Gecekondu with stairs



Ongoing construction between buildings



Constructing a two-storey building



Complete second floor, incomplete first floor



Buildings with added rooms



Added storey



Added terraces



Buildings with added storeys



Brick wall



Half painted brick wall



Zeytinburnu Streetscapes



Typical Zeytinburnu street



Street with buildings of six storey or more



Back street



Building entrance



Intersection of main streets

Enterprises spring up



Small grocery store



Cafe



Grocery store



Repair shop



Living in Zeytinburnu



Children playing in the street



Clothes hanging out to dry



Deliveries



Shopping

Problems with buildings



Incomplete building



Closely spaced buildings



Yard between buildings with trash



Trash between buildings



Building in disrepair



Old and deteriorating building



Damaged balcony



Damaged terrace



Damaged terrace close-up

Living in Zeytinburnu - Problems with buildings



Exposed brick and construction debris



Exposed cables on building exterior



Exposed rebar



Exposed rebar close-up

Problems with buildings



Below grade entrance



Precarious roof



Crumbling walls



Deteriorating Gecekondu

New construction



New construction (left) next to older buildings



Construction site surrounded by multi-storey buildings



Six-storey buildings behind Gecekondu



Multi-storey buildings



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