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CANADA'S NEW FEDERAL MORTGAGE REGULATIONS Warranted and Fair?

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Introduction

N 2012, NEW RULES CONCERNING the regulation of mortgage lending and mortgage insurance were put in place by the Canadian federal government, with the intention of stemming rising debt levels and reducing the risk of a financial crash. At the same time, the federal government implemented changes to the governance of the Canada Mortgage and Housing Corporation (CMHC). The Office of the Superintendent of Financial Institutions has been given greater oversight over CMHC, and over mortgage lending in general, and has used this new authority to implement changes to the kinds of mortgages that can be insured. Together, these changes in the regulations represent a significant shift away from the lending regime that has been in place in Canada since 2006.

These changes have received attention from the media, financial institutions, and from national and local real estate associations. The Canadian Real Estate Association is worried that the changes will "keep a lid on national sales activity" (CREA, 2012), while the banks have warned the government to be "careful what you wish for," suggesting that tighter mortgage lending regulations could lead to reduced construction and sales activity, and that these trends would have impacts on jobs, property values, and Canada's short-term GDP (Babad, 2012).

"Changes to mortgage insurance criteria are unnecessarily jeopardizing the health of Canada's housing markets and the broader economy."

- Will Dunning

The strongest objection to the new rules comes from Will Dunning, author of a recent report for the Canadian Association of Accredited Mortgage Professionals (Dunning/CAAMP, 2012). Dunning argues that the new rules are misguided and will lead to a "policy-induced housing market downturn" (page 7). He states that "changes to mortgage insurance criteria are unnecessarily jeopardizing the health of Canada's housing markets and the broader economy" (page 3). His report suggests that under the new rules, 9.3 percent of homebuyers who were able to acquire insured mortgages in 2010 would no longer be able to do so. What the report fails to highlight is that the new rules merely bring mortgage finance regulations back to where they were in 2006 – that same 9.3 percent of homebuyers would not have been able to acquire insured mortgages before the changes introduced in 2006.

The prediction of a slowdown in housing and mortgage markets accords with the analysis of a number of economic commentators both within and outside the industry (see for instance, the excellent work of Ben Rabidoux at www.theeco-

nomicanalyst.com). At the same time, a host of important economic institutions and analysts, including the Bank of Canada, the International Monetary Fund, and writers for *The Economist*, have suggested that real estate values in Canada, not to mention the burden of household debt, have surpassed levels that can be justified by fundamentals (Carney, 2011; Celasun et al., 2011; The Economist, 2011). In other words, they warn of a "bubble," that if not mitigated, could cause even greater damage. Indeed, many commentators think that the bubble has

grown large enough that a correction is inevitable anyway (again, see Ben Rabidoux's work at www.theeconomicanalyst.com).

Jim Flaherty, Minister of Finance, has made it clear that he recognizes the trade-offs involved between slowing the housing market and the rise in household debt, versus allowing the bubble to grow. On balance, he argues that the regulatory changes are necessary: "I realize it may have some dampening effect on the economy and I realize it may have some dampening effect in the residential real estate market...We are prepared to take that risk, quite frankly,

because of the greater risk of the development over time of a housing bubble" (quoted in Robertson, 2012).

This bulletin reviews and analyzes the changes that have been made to mortgage lending regulations. Instead of examining their effect on housing values or the Canadian economy more broadly, the objective is to ascertain their impact on borrowers. In particular, this analysis considers whether the new rules are socially warranted, given differential access to credit and the current distribution of household debt among different socio-economic groups, and whether the new rules make mortgage lending in Canada more fair or less fair. In short, it seeks to determine whether the new regulations represent a net social benefit to Canadian society.

The Structure of Canadian Mortgage Insurance

Regulated Canadian financial institutions are currently only allowed to issue mortgages with loan-to-value ratios of more than 80 percent (that is, with a down payment of less than 20 percent) if such mortgages are insured. This rule is intended to maintain stability within the financial system. It is the *borrower*, however, not the lender, who pays for the insurance. If a borrower with an insured mortgage defaults and cannot pay back the loan, the *lender* is repaid the full amount of the mortgage. There are no federal programs for supporting the mortgage payments of borrowers who find themselves

1 Joe Stiglitz, winner of the Nobel Memorial Prize in economics, is considered one of the first to delineate the proper definition of a bubble. An asset bubble exists when values surpass those that can be justified by the fundamentals based on owners' incomes or the rents that can be generated by the asset. According to Stiglitz (1990) "if the reason that the price is high today is *only* because investors believe that the selling price will be high tomorrow – when 'fundamental' factors do not seem to justify such a price – then a bubble exists" (page 13, emphasis in original). Stiglitz and others have pointed out that it is impossible to know in advance with certainty whether the inflated values for an asset constitute a bubble until tested by the passage of time.

The issuing of insured mortgages presents virtually no risk to Canada's banks and other financial institutions, and this fact alone provides an incentive for lenders to issue as many insured mortgages as might be profitable for them.

in difficulties in Canada, other than the basic income support provided by Employment Insurance in the face of unemployment.

The issuing of insured mortgages presents virtually no risk to Canada's banks and other financial institutions, and this fact alone provides an incentive for lenders to issue as many insured mortgages as might be profitable for them (and furthermore, to package these mortgages into mortgage-backed securities and then move them off their balance sheets by selling them into the secondary mortgage market). For this reason, the federal government through

its regulatory bodies governs the conditions under which mortgages can be issued by financial institutions to ensure that the mortgage loan is in the interest of *both* the borrower and the public at large (considering that the public is ultimately on the hook if the borrower defaults). If a lender issues a mortgage that qualifies for mortgage insurance according to the criteria laid out in the regulations, it is considered a conforming (or qualifying) mortgage.

Mortgages with loan-to-value ratios of less than 80 percent (that is, down payments greater than 20 percent) do not require mortgage insurance, and thus banks do not by law need to ensure that such mortgages meet the same stringent qualifying criteria set out in federal regulations. However, such mortgages would then remain uninsured, with the lender taking all the risk, so lenders usually ensure that the mortgages they issue conform to the regulations. Furthermore, an increasing number of all mortgages issued by Canadian banks and other financial institutions are now packaged into mortgage-backed securities (MBS), which are either themselves insured by one of the mortgage insurers, or sold to the Canada Housing Trust (CHT, a special-purpose trust of CMHC). The Canada Housing Trust issues bonds, called Canada Mortgage Bonds (CMB), and uses the proceeds to purchase mortgagebacked securities from Canada's financial institutions. Such packaging into mortgage-backed securities is conducted under rules set out in the National Housing Act.

Only mortgage-backed securities containing conforming loans can be insured using portfolio insurance under the *National Housing Act* (NHA) and only NHA-qualifying mortgage-backed securities can be purchased by the CMHC/Canada Housing Trust. For this reason, Canadian financial institutions generally require that the mortgages they originate meet the criteria for conforming loans, otherwise they would not be able to insure them with CMHC, or to package them into mortgage-backed securities and sell them to CMHC/CHT.

Regulations governing what constitutes a conforming or qualifying mortgage are thus very important to financial institutions, who must revise their mortgage lending practices whenever the regulations change, and to the Canadian public, since they affect the quality of the mortgages that are insured and guaranteed by the Canadian federal government through CMHC and the private mortgage insurers. Of course, Canadian financial institutions are free to issue uninsured mortgages on their own terms (that is, non-conforming), and to keep those mortgages on their books, as long as the loan-to-value ratio is less than 80 percent.

Mortgage insurance is currently provided by four institutions. The CMHC is a crown corporation and the largest mortgage insurer in the country, insuring approximately 70 percent of mortgages issued by Canadian financial institutions. While the CMHC operates its mortgage insurance business on a commercial basis (it is supposed to ensure that it has sufficient capital and collateral to back up its insurance, and is supposed to adopt practices that maximize profitability), because it is a crown corporation, a full 100 percent of the value of the insurance offered by CMHC is guaranteed by the federal government, and thus by the Canadian public. The CMHC also provides funding for social housing, but the vast majority of its business relates to the insuring of mortgages. (For a glossary of the acroynms used in this bulletin see Table 1, below.)

TABLE 1: Glossary of Terms

CHT	Canada Housing Trust, a special purpose trust of CMHC that purchases MBS
СМВ	Canada Mortgage Bonds (issued by CHT to fund the purchase of MBS)
СМНС	Canada Mortgage and Housing Corporation (a crown corporation)
GDS	Gross Debt Service (mortgage payments as a proportion of gross income)
HELOC	Home Equity Line of Credit (line of credit registered against the home)
IMPP	Insured Mortgage Purchase Program (temporary federal 'stimulus' program)
MBS	Mortgage-backed securities (securities backed by packages of mortgages)
MICC	Mortgage Insurance Company of Canada (a private insurer, now part of Genworth)
NHA	National Housing Act (the federal legislation that governs housing finance, CMHC)
TDS	Total Debt Service (all debt payments as a proportion of gross income)

There are also private mortgage insurers currently operating in Canada. The oldest is Genworth (General Electric

Capital Mortgage Insurance Corporation of Canada), which has operated under this name since 1997, when it absorbed the long-standing and smaller Mortgage Insurance Company of Canada (MICC), which had been operating since 1963. More recent entrants to the Canadian mortgage insurance market are PMI Mortgage Insurance Company Canada and Canada Guaranty Mortgage Insurance Company.

All the private mortgage insurers receive a 90 percent guarantee, from the federal government, against default of all the mortgages they insure. Thus, the Canadian public takes on 90 percent of the risk associated with the insurance of all privately insured mortgages (the first 10 percent is funded through a special guarantee fund levied on private insurers as a condition of their licence – this fund would have to be extinguished before the government became liable for the remaining 90 percent). However, the profit from private mortgage insurance operations is not shared with the Canadian public.

This arrangement, which began with MICC, is justified as necessary to allow the private-sector mortgage insurers to be able to "compete" with CMHC. Effectively, such an arrangement assumes that having the Canadian public bear much of the risk of default on privately insured mortgages is worth the benefits of having all mortgage insurers compete with each other to offer the best package of mortgage insurance, on the grounds that such competition maintains the flow of mortgage credit available to Canadians while keeping costs down for lenders and borrowers. Of course, one might question whether this stimulates real "competition" and whether, without the taxpayer guarantees, the private insurers would even remain in business. In fact, it could be argued that the Canadian public is subsidizing the illusion of competition by paying these "private" insurers to transfer risk off the books of the banks.

Regulatory Changes

In 2012 the federal government introduced two distinct, but interrelated sets of regulatory changes pertaining to the Canadian mortgage market and lending standards. The first set consists of amendments to the criteria for conforming loans eligible for government-backed mortgage insurance, which took effect on July 9. These changes build on previous amendments announced in 2008, 2010, and 2011. The second set consists of changes to the oversight and governance of CMHC, and the kinds of insurance products CMHC and the other private insurers are allowed to offer.

A. Changes to the Criteria for Conforming Mortgage Loans Eligible for Government-Backed Insurance

A1. The maximum amortization period for qualifying mortgages is reduced from 30 years to 25 years. This change follows previous reductions in the amortization period from 35 years to 30 years in March 2011, and from 40 years to 35

years in October 2008. This regulatory change effectively returns the amortization period to the standard 25-year term that had been in place between 1969 and 2006. The maximum amortization period had first been raised from 25 to 40 years in 2006.

A2. The maximum gross debt service (GDS) ratio, which reflects the maximum proportion of income that may be allocated to housing costs (including not only mortgages, but property taxes, heating, and half of condo fees) when calculating how much a prospective home-buyer can afford to borrow against income has been fixed at 39 percent of gross income. The maximum total debt service (TDS) ratio, which reflects the maximum percentage of income that can be allocated to cover all debt payments, is fixed at 44 percent. While it is said that the standard practice among Canada's banks in lending for conventional mortgages has been to set the GDS and TDS at 33 percent and 40 percent, respectively, lenders had been issuing mortgages with GDS and TDS ratios higher than these limits, and these mortgages had still qualified for mortgage insurance.

A3. Mortgages issued for properties with a purchase price greater than \$1 million will no longer qualify for government-backed mortgage insurance. Before this, there was no limit to the purchase price of properties to which qualifying mortgages could be applied.

A4. The maximum proportion of their equity that homeowners can access when refinancing their mortgages has been reduced to 80 percent from 85 percent. This is a further reduction from the 90 percent allowable until March 2011, and the 95 percent allowable between 2006 and 2008. It is claimed that this change will "effectively eliminate the high-ratio refinance market" (CMHC, 2012, page 7).

These regulatory changes follow a series of previous revisions to the criteria for conforming loans made in 2008, 2010, and 2011, particularly the following:

A5. In April 2011, the federal government ended the practice of allowing lines of credit secured on the equity in property (home-equity line of credit, or HELOC) to qualify for mortgage insurance under the NHA. Before this change, the use of HELOCs to purchase and speculate on real estate had been growing rapidly.

A6. In April 2010, the federal government introduced a rule requiring that lenders assess affordability (and the GDS and TDS) using the posted conventional five-year fixed mortgage interest rate, instead of the posted variable or prime rate, even if the borrower later opted for a variable-rate product (which they were still allowed to do). Previously, many lenders had been assessing borrowers using the posted variable or prime rates. However, when the financial crisis hit in fall 2008, the Bank of Canada reduced its overnight rate to as close to zero as possible, which had the effect of reducing the interest rates charged on variable rate loans, and in turn, significantly

increasing the amounts for which borrowers qualified at the going prime rate.

A7. In April 2010, the maximum insured mortgage loanto-value ratio allowable on non-owner-occupied small rental housing units (excepting duplexes and triplexes) was reduced from 95 percent to 80 percent. The ratio had previously been lowered from 100 percent to 95 percent in October 2008. This change had the effect of increasing the down payment required for purchases of smaller rental properties to 20 percent if the mortgage was to qualify for government-backed mortgage insurance, although borrowers may still obtain other fixed-term loans for the down payment if banks are willing to lend to them. However, the insured portion cannot be greater than 80 percent.

A8. In October 2008, the minimum down payment was increased from zero to 5 percent (at the same time that the maximum amortization was reduced from 40 to 35 years). As well, interest-only loans would no longer qualify for government-backed mortgage insurance – although the private insurers were still free to insure them, which they did.

B. Oversight of the Office of the Superintendent of Financial Institutions (OSFI)

As part of the *Jobs, Growth and Long-Term Prosperity Act* (Bill C-38, which received Royal Assent on June 29, 2012) and changes to the *National Housing Act* (NHA), the federal government introduced legislation to provide greater oversight of CMHC and to change the way that CMHC is governed. These changes include placing the Deputy Ministers of both Finance and Human Resource and Skills Development Canada on CMHC's board, revising CMHC's mandate to include as part of its commercial objectives the stability of the financial system, giving the Minister of Finance legislative and regulatory authority in relation to CMHC's securitization and mortgage insurance programs, and placing CMHC under the oversight of the Office of the Superintendent of Financial Institutions (OSFI).

OSFI's oversight over mortgage insurance regulation gives it scope to regulate mortgage lending, and to shape the kinds of mortgage insurance products offered by CMHC and the private mortgage insurers. In addition to requiring stricter diligence in the appraisal of credit scores, and of property values, on behalf of financial institutions, OSFI has (among other things) decreed the following three important changes to the regulation of conforming mortgages, effective October 31, 2012:

B1. Incentives or rebates on behalf of financial institutions will no longer be considered part of the down payment, and only "non-recourse" gifts can be included (non-recourse gifts are gifts in which the one providing the gift does not maintain a legal claim on the property or the borrower; in other words, loans cannot be used to fund the down payment). Hence,

"cash-back" mortgages will no longer qualify for governmentbacked mortgage insurance. While a minimum down payment of 5 percent has been required since October 2008, before these changes took effect, this down payment itself could be borrowed, or "gifted" to the purchaser, even by the same financial institution that was originating the mortgage. These arrangements were often called "cash-back" mortgages, because the borrower would receive the money on the day the mortgage closed, allowing the borrower to use it for the down payment if he or she chose. Typically, the bank recouped the "cash-back" amount by increasing the interest rate paid over the first five years of the loan term, with a further stipulation that the loan was not portable (to another financial institution) during the first five years. Cash-back mortgages were a way of skirting the 5 percent down payment rule, allowing lenders to effectively lend the down payment to borrowers. Many borrowers who availed themselves of this kind of loan held less than 5 percent equity (in fact, often zero equity) in their residential property at the time of purchase.

B2. Income and employment status will now need to be documented and verified, and "no-doc" loans will no longer qualify for government-backed mortgage insurance. CMHC and the private insurers had been offering various "stated-income" mortgage insurance products. CMHC, for instance, had been insuring "self-employment recognition"

mortgages, in which the borrower need only self-identify as self-employed to be exempted from the requirement to produce verification of steady income. This provision was very similar to the "no-doc" loans that had been issued in the United States.

B3. Insured mortgages that are conforming under the NHA regulations may no longer be used as collateral for covered bonds. Covered bonds are private bonds issued by banks; the proceeds are used to fund mortgages and other debt instruments, and the owners of the bonds have claim to the collateral backing up the loan. Covered bonds are more common in Europe, but have been growing in Canada as a vehicle for supplying mortgage finance to banks. However, Canadian financial institutions had been using insured mortgages guaranteed by the federal government as collateral for the covered bonds they were issuing. Because of the insurance, the banks were often able to borrow at very low rates of interest, since the insured mortgages represented no risk to the

bank. This meant that the insurance paid by borrowers, and the guarantees provided by the federal government (and thus, the Canadian public), were being appropriated by the banks to profit from lower financing on bonds they were issuing (see Kiladze, 2012). This change means that CMHC will take more of a role in regulating and registering the use of covered bonds as a vehicle for supplying mortgage finance in Canada.

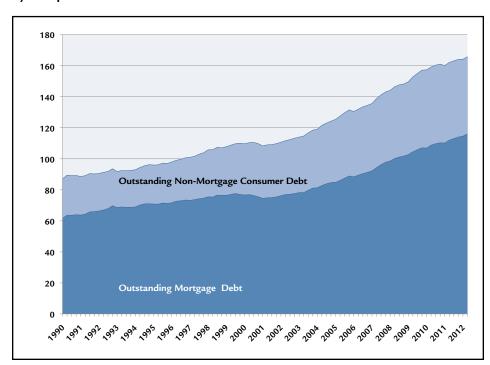
All of these changes to the way that mortgage finance is regulated effectively return the mortgage finance system close to the regulatory situation that had been in place before 2006.

Mortgage Lending and Rising Household Debt

These changes are being implemented with an explicit objective to reduce the uptake of high loan-to-value and loan-to-income mortgages and to reduce the risk of the housing market developing an unsustainable bubble (in which property values are not justified by fundamentals). The new regulations will make it more difficult to qualify for insured mortgages, and thus limit the amount of new mortgage credit on offer from regulated Canadian financial institutions. They will also limit the ability of borrowers to make highly leveraged bets on real estate.

Before one can assess whether such changes might be considered warranted or fair, it is important to understand how the level of mortgage lending evolved in Canada, and how it

FIGURE 1: Household Debt as a Percentage of Disposable Income, Canada, by Component



Source: Calculated by the author from the Cansim database, Tables 3780123, 1760027. The above data derive from the new Cansim series, and do not include the outstanding debt or income of unincorporated business (the old series included unincorporated business).

relates to the rise in household debt. Figure 1 shows how the level of household debt as a percentage of household disposable income has changed over time, and the proportions attributable to mortgage debt and to other forms of consumer debt (credit cards, student loans, automobile loans, etc.). Household debt has risen rapidly and consistently since the early 1990s, and by early 2012 was at a record level, almost double that of 1990. Canada's debt-to-income ratio has now surpassed that of the United States at the height of its bubble.

Rising mortgage debt is a key component of the rise of total household debt. Mortgage debt has increased for a number of reasons, but the main ones are declining nominal interest rates and the loosening of mortgage lending regulations since 2006. Perhaps most importantly, rising mortgage debt cannot be explained by rising incomes alone.

Figure 2 shows the average mortgage approval amount as a percentage of average gross household income. It is clear that, apart from the credit crunch that emerged in late 2008 and early 2009, the average mortgage amount has increased fairly consistently since 2001, even after controlling for income (2001 is when the Canada Mortgage Bonds program was introduced under the then Liberal federal government). The Canada Mortgage Bonds (CMB) program has been one of the most important developments spurring the issuance of mortgages, as it allows financial institutions to package the mortgages they issue into mortgage-backed securities, and to then sell these securities to CMHC/CHT. This means the banks do not need to hold as much capital in reserve to back

FIGURE 2: Average Mortgage Amount as a Percentage of Average Household Income



Source: Calculated from Statistics Canada, Census of Canada, various years, and CANSIM database Table 270017. Five-month smoothed average.

up their loans. Banks can thus use the proceeds they receive from the sale (and the reduced capital reserve requirements, in relation to what they would have had to retain if they were required to hold the mortgages on their books) to lend out even more in the form of mortgages. Because they do not hold these mortgages on their books, financial institutions have less of an interest in limiting the amount of credit they offer, and managing the risk involved with each mortgage. Indeed, since the banks are paid in full by CMHC/CHT for the mortgage-backed securities they sell to CHT, it is in their interest to issue larger mortgage loans to each prospective borrower. With the introduction of the CMB program, the responsibility for maintaining lending standards has fallen onto the federal government.

However, starting in 2006, instead of maintaining tight credit standards to counter the structural incentives for financial institutions to over-lend (as a result of the CMB program, which encouraged financial institutions to securitize the mortgages and sell them to CMHC/CHT), federal lending regulations actually allowed for credit loosening and lower lending standards. The standard amortization term for insured mortgages was raised from 25 years to 40 years in 2006, while zero-down mortgages and interest-only mortgages became eligible for mortgage insurance. The Insured Mortgage Purchase Program (IMPP), part of the federal government's response to the financial crisis, also directed the CHT/CMHC to purchase directly, using loans from the people of Canada, mortgage-backed securities from Canadian financial institutions. The

IMPP further increased the availability of mortgage credit during the time it was active (mainly late 2008 through to the end of 2009).

Together, these programs and policies gave the banks even more incentive to lend, and enticed many lower- and middle-income Canadian households, particularly new and young home-buyers, into unsustainable levels of debt, while allowing wealthy older homeowners to cash out at artificially high prices. The banks posted record profits, while the insured liabilities on the books of the CMHC grew rapidly. Seen in this light, it is no surprise that mortgage debt continued to rise and that the federal government has responded by incrementally tightening the system of mortgage lending.

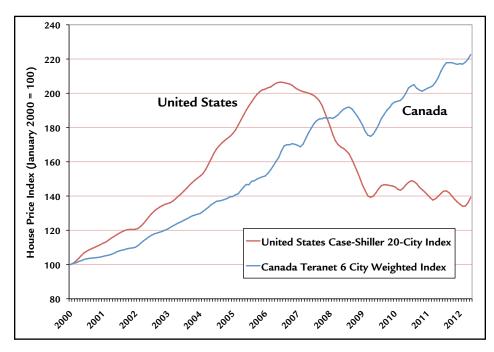
Mark Carney, the governor of the Bank of Canada, has called high household debt loads "the No. 1 domestic risk to the Canadian economy" (Torobin, 2012). Because much of the debt is insured and guaranteed (or owned, in the case of mortgages packaged into mortgage-backed securities and sold to CMHC/CHT) by the Canadian public, high household debt loads also represent a risk to the Canadian treasury. If households begin defaulting on their mortgages in significant numbers, the banks will be made whole by CMHC, and investors who bought Canada Mortgage Bonds will continue to receive their payments (principal and interest). The difference has to be made up by the federal government, and these payments would directly impact the federal budget. Mohindra (2010) refers to the existing Canadian system of mortgage finance as the "high taxpayer vulnerability model."

Low interest rates and easy availability of credit have also allowed home buyers to bid more for houses than they

would otherwise. This, more than any other factor, is behind the rapid rise in house values in Canada, which since mid 2010 have exceeded those in the United States at the height of its housing bubble in late 2006 (Figure 3). Indeed, house prices in the United States started declining from their peak in late 2006, and fell rapidly over the 2007-2009 period, after which they have fluctuated around a level approximately 40 percent higher than in the year 2000. In Canada, on the other hand, house prices really fell only at the height of the recession, from late 2008 to mid 2009, after which they continued their ascent, and by early 2012 had reached their highest level on record, roughly 120 percent higher than in the year 2000. As a result, the ratio of median house price to median income has risen dramatically, from a standard multiple of 3, to a "seriously" unaffordable multiple of 4.6 across major metropolitan areas in 2012 (Demographia, 2012). The largest cities have fared worst. Toronto's price-to-income ratio has risen to 5.5, while Vancouver's has risen to 10.6, the second-most unaffordable housing market in the English-speaking world.

Figure 4 provides an estimate of the proportion of the change in house prices that is related to changes in income and interest rates between 1990 and 2012, and the proportion due to other factors. This model estimates the monthly payment that can be afforded by the average household income in each month, given the prevailing interest rate on 5-year fixed conventional mortgages, discounted by 1.25 percent (a common discount – thus, if the posted 5-year rate is 6 percent, the discounted rate is 4.75 percent), and from this the

FIGURE 3: House Prices in Canada and the United States

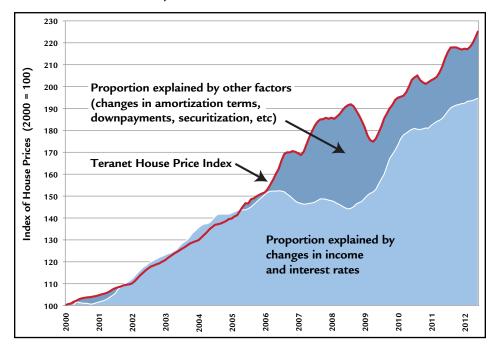


Source: S&P/Case-Shiller 20-City Index (United States), Teranet 6-City Index (Canada)

size of mortgage that could be obtained by borrowers given standard rules for conforming mortgages (25-year amortization term and 5 percent down payment). These estimates are then turned into an index by comparing them to the level in January 2000 (2000 = 100). The model also assumes that it takes six months for changes in interest rates and incomes to work their way through the system in bidding up the price of houses to what can be afforded with that income/interest rate.

While clearly not perfect and based on only a few variables, the model is telling in that it suggests that until 2006, when the federal government reformed mortgage lending regulations, interest-rate and income changes effectively explained the rise in house prices to that point. However, after 2006, other factors begin to explain the increase, with the gap growing to its maximum right before the financial crisis hit in 2008. The gap began to narrow again in late 2008 and early 2009, after interest-rate reductions increased affordability and the recession brought down the cost of housing. However, this effect lasted only a short time, and the gap began growing again between mid 2009 and 2012, despite further incremental tightening of mortgage lending by the federal government in spring 2010 and 2011. By early 2012 the gap had once again widened to its highest level since October 2008. Clearly, previous rounds of incremental tightening had not been sufficient, and the federal government felt it needed to improve mortgage lending standards further.

FIGURE 4: Proportion of House Price Changes Explainable by Changes in Interest Rates and Income, versus other Factors



Source: Estimate calculated by the author based on changes in the prevailing discounted five-year fixed rate on conventional mortgages and changes in household income, relative to 2000, assuming a six-month lag time between income/interest-rate changes and their effect on house prices. Note: this is but one possible model of the factors driving real estate prices and does not purport to explain all the complexity involved in shifts in values.

Assessing the New Mortgage Regulations

Are the new mortgage regulations warranted, and might they be considered fair? The social impact of the new federal mortgage regulations depends partly on how they affect the social distribution of debt among households with different income levels, typically measured using the debt-to-income and debt-service ratios, and how fair they are in facilitating access to credit, among other things. First, however, it is important to understand the current situation regarding the social distribution of debt.

The Social Distribution of Debt

Under normal conditions, it can be expected that middle- and higher-income households would have higher levels of total debt, because the vast majority of debt is in the form of mortgages. Only those with enough income to become a homeowner would be expected to obtain a mortgage, while renters would not typically hold a mortgage. Indeed, a study by researchers at the Organisation for Economic Co-operation and Development (OECD) has found that in many countries, this is true: higher-income households have higher debt-service ratios (debt service as a proportion of income) and higher debt-to-income ratios, while lower-income households, most of whom rent their housing, have lower debt-service and

debt-to-income ratios (Girouard et al., 2006).

However, the opposite is true in a number of countries, including Canada. Lower-income households in this country carry higher debt levels, and pay more in debt service as a proportion of their income than middle-income or higher-income households. This situation has arisen because many lower-income households have been enticed into homeownership, while middle-income households have gone deeper into debt to afford the rising cost of housing. Furthermore, lower-income households hold higher levels of non-mortgage debt than wealthier households. The distribution of household indebtedness has become more regressive since 2006, with the burden of debt shifting more toward middle- and lower-income households. This trend is very troubling and provides strong evidence that the financial system in Canada has not been working in the interest of many Canadian households.

Typically, when the total debt service ratio (TDS) surpasses 40 percent of

household income, households are considered debt-stressed. In 2007, the lowest-income households in Canada were close to being four times as likely as high-income households, and almost twice as likely as middle-income households, to have debt-service ratios above 40 percent of income (Faruqui, 2008). Analyzing the Survey of Financial Capability at Statistics Canada, Hurst (2011) found that by 2009, only two years later, these disparities had more than doubled. In 2009 lowincome household (with incomes of less than \$50,000/year) were 4.36 times more likely than middle-income households (\$50,000-\$79,000/year) and 10.63 times more likely than the highest income households (more than \$120,000) to have such high debt-service ratios (Hurst, 2011). At the same time, low-income households had a level of indebtedness in relation to income that was 109 percentage points above that of middle-income households, and 147 percentage points above that of high-income households. Finally, the lowest-income households were 2.2 times more likely than those in the middle, and 6.8 times more likely than high-income households to have a debt-asset ratio above 80 percent.

Furthermore, when other variables are included and controlled for in logistic regression models, the disparities between high- and low-income households become even greater (Hurst, 2011). Controlling for other variables, those

in the lowest income category are 6.75 times more likely than middle-income households, and 23.3 times more likely than the highest-income households, to have debt-service ratios above 40 percent (Hurst, 2011, Table 4). And when other variables are controlled for, the debt-income ratios of the lowest-income households increase relative to those of middle- and high-income households, from 109 and 147 percent higher, respectively, to 162 and 253 percent higher, respectively. Debt burdens have increasingly been shifting toward middle and particularly low-income households.

The unequal distribution of debt among households is reflected in an uneven and regressive distribution of debt among neighbourhoods within Canadian cities. In my research, I have found that for every \$10,000 rise in average household income at the neighbourhood (census-tract) level, household

debt as a proportion of the average household disposable income decreases by 5.68 percent. This result holds true after controlling for a host of other variables, including household age structure, immigration status, education, family status, population growth, housing tenure, age of housing, urban form, and occupational change (Walks, forthcoming 2013). Across Canadian cities, if the average household income of a neighbourhood is half of that in the metropolitan area in which it is found (indicating that the neighbourhood is

poor), its debt-to-income ratio is 15 to 20 percentage points higher than if the neighbourhood has an income equal to the metropolitan average. At the same time, neighbourhoods with twice the metropolitan average household disposable income (indicating that they are rich neighbourhoods) have debt levels 30 to 40 percentage points lower. This means that the payment of debt service effectively transfers a greater proportion of the hard-earned income of those living in poorer neighbourhoods to those living in richer neighbourhoods.

The housing and financial markets in Canadian cities have been saddling lower-income households and neighbourhoods with higher debt loads than those of middle-income, and middle-income households and neighbourhoods with higher debt loads than those of higher-income. The evidence suggests this trend has deepened since 2007. Of course, the mortgage finance system is not nearly as regressive as that of payday lending. Nonetheless, any reforms to the current regulations that reduce the unequal aspects of this system are warranted, and it is in this context that the new mortgage rules can be assessed.

New Mortgage Regulations: Warranted and Fair?

In order to assess whether the new mortgage regulations might be considered warranted and fair, the implications and

effects of the rules in each aspect of mortgage lending need to be analyzed.

Amortization Terms

Changes that affect the standard amortization term for qualifying mortgages are one of the most important in affecting the social distribution of debt. Through a series of steps, the federal government has incrementally reduced the standard amortization term from 40 years to 25 years. While many people may think that extending the amortization term is in their interest, since they can then afford a larger mortgage and thus a more expensive house, in fact, longer amortization terms mainly benefit lenders at the expense of borrowers, and the increased demand spurred by the ability of borrowers to bid more for houses merely drives up the cost of housing.

A \$300,000 mortgage at 4 percent amortized over 25 years will entail a monthly payment of roughly \$1,580, and a total interest cost of about \$173,000. However, when amortized over 40 years, the monthly payment is brought down to approximately \$1,250, but the total interest paid over the life of the loan rises by a full \$110,000 to \$283,000. Thus, even without increasing the mortgage amount, the borrower ends up paying significantly more to the lender. Of course, the benefit of a larger amortization term is that bor-

rowers can obtain larger mortgages. If the same borrower then were to increase the mortgage to what the 40-year amortization will allow, he or she would be able to take out a mortgage of \$378,000, and then pay about \$376,500 in interest over the life of the loan, almost triple the total interest paid of the original loan for which the borrower qualified under a 25-year amortization.

While borrowers may think that the longer amortization period allows them to buy a better house, the truth is that if everyone has access to mortgages with 40-year amortization periods, buyers will bid up the price of housing so that what once could be afforded with a \$300,000 mortgage will eventually require a \$378,000 mortgage. The benefit mainly goes to the lender, who collects triple the interest from the borrower for each mortgage issued. The borrower household, on the other hand, gets the same house it would have anyway, at either 40- or 25-year amortization, but under the longer amortization term simply ends up handing over more income for a longer period to the banks for the privilege. The move to reduce the standard amortization term for qualifying loans back to 25 years is thus warranted and in the public interest. It is also fair. The banks will lose in interest payments, but even the banks will gain in the long run, as lower overall interest

The unequal distribution

payments leave households with more real income for saving and investing, allow households to pay down their mortgages faster, and reduce the vulnerability of households to high debt levels and thus the likelihood of default.

Down Payment Terms

The requirement for a 5-percent down payment, and the banning of rebates (cash-back), incentives and recourse 'gifts' from the calculation of the down payment, is another important change. There are three benefits from having higher down payments.

First, borrowers and financial institutions are protected from a decline in real estate values, which occurs with every recession. The existence of down payment regulations in itself will increase the stability of property values and reduce the likelihood that borrowers will end up "underwater" (in negative equity).

Second, it reduces the ability of speculators to use undue amounts of leverage for housing and outbid Canadian households who just need a place to live. When there is no down payment requirement (zero down), the ability to obtain a mortgage depends on income only, and the amount that can be leveraged becomes very high. In such a scenario, speculators hoping to cash in on rising asset values can outbid Canadian households not looking to speculate but just needing a place to live, pushing up housing costs for everyone. Such speculators did not even have to put down any money. This allowed them to appropriate assets from more prudent borrowers who would not think of gambling on an investment like their primary residence without having some equity in it.

Third, not only did cash-back incentives effectively skirt the down payment regulations, they saddled lower- and middle-income Canadian households with higher interest rates and more restrictive mortgage terms (limited portability) than they would have faced if there had been no down payment required. It is mainly lower-income households that, having more limited choices in the mortgage market, would be expected to avail themselves of the cash-back provisions in order to get into the housing market, and thus the cash-back system is likely one of the factors disproportionately driving up debt service levels among low-income households (although there has been no explicit research on this issue as of yet). Raising the down payment requirement to a firm 5 percent supports the activities of regular savers and homebuyers, and limits the ability of the financial institutions to extract additional interest from more desperate and low-income borrowers through cash-back provisions. These changes are thus warranted and fair.

Not only did cash-back incentives effectively skirt the down-payment regulations, they saddled lower- and middle-income households with higher interest rates and more restrictive terms than they

would have faced.

Qualifying Using Fixed Interest Rates

Since April 2010, federal regulations have required lenders to assess affordability using the 5 year fixed rate on conventional mortgages instead of the variable rate. Borrowers could still opt for the variable-rate loan, but would not be able to obtain the mortgage without also qualifying at the fixed rate. This change was necessary, as the Bank of Canada in 2009 brought down the overnight rate to less than 1 percent, in turn reducing the prime rates charged by the banks. However, this was an emergency measure, designed to stimulate the economy, and Mark Carney, governor of

the Bank of Canada, warned that such emergency rates would not continue.

While such a measure was meant to enhance financial stability and reduce the over-extension of borrowers, it is also socially warranted. It goes some way towards protecting borrowers from being enticed by low interest rates into debts that they can no longer afford when interest rates rise. It also goes some way towards limiting the inherently predatory elements in the system. Canadian financial institutions have been said to employ "a strategy of low rates up front, hoping to attract customers who also want to move accounts, while hoping to make bigger margins off customers down the road when they refinance" (Robertson and Perkins, 2012). If rates rise before the point of refinancing, many low-income households would be in peril. Meh et al. (2009) found that the lowest quintile of households in Canada actually have a negative net equity position, with the result that if they cannot service their debts out of their income, they "may have trouble making up the difference through asset liquidation" (Meh et al., 2009, page 13). This measure helps prevent future low-income households with few other assets from becoming over-leveraged and thus limits the chances they would lose their house in a recession, although it does not help already over-leveraged low-income households.

Income Documentation and Verification

The OSFI is now requiring firm documentation and verification of income for qualifying mortgages. As in the down payment regulations, an important benefit of such a move is to limit the ability of speculators to gamble in the housing market with very high levels of leverage. In the case of "nodoc" loans, speculators could obtain mortgage funds far in excess of their ability to service the loans out of income merely by claiming they were self-employed. This provision allowed them to purchase properties in a rising housing market with

the intent of "flipping" those properties for profit and paying off the loan once a property sold.

Such speculators were able to out-bid Canadian homebuyers who intended to service the loans out of income, and thus not only drive up housing costs for everyone else, but also appropriate an important resource for speculative purposes. Perhaps most galling is that such speculators operated using money insured and guaranteed by the Canadian people, and the only reason the banks provided "no-doc" loans ("self-employment recognition" mortgages, etc.) was that there was no risk to the banks. By insuring these mortgages, speculators did not need to borrow from the increasing numbers of subprime lenders, who would normally be the ones to lend to such groups. Having the CMHC insure "no-doc" loans transferred the risk of gambling in the housing market onto the Canadian public. Eliminating such loans is therefore in the broader public interest.

At the same time, it remains unknown what proportion of borrowers fit into the speculative category. Furthermore, a number of households depend on self-employment income and would have used this program to obtain a mortgage that otherwise would not have been available due to a lack of steady income or an inability to fully document their income. The new regulations could therefore make it more difficult for self-employed Canadians to obtain mortgages. However, the banks would still be free to lend to the self-employed (they just would not have the mortgages insured and guaranteed by the federal government without full documentation), and these borrowers can still obtain non-insured loans (albeit at slightly higher interest rates) from "subprime" lenders, a group that is growing in Canada (Evans, 2012).

So, on balance, the elimination of "no-doc" mortgages is warranted. It has the added benefit of reducing the vulnerability of the financial system, and the exposure of the federal government and the Canadian people to the bad bets of speculators. And by reducing the ability of speculators to appropriate housing from prudent lower- and middle-income Canadian households, it is also fair.

Maximum Accessible Equity When Refinancing

The federal government has reduced, again in a series of incremental steps, the amount of equity that homeowners can access when refinancing their homes, to 80 percent (down from 95 percent before 2008). This means that homeowners will not be able to use their houses to the same extent in withdrawing equity in order to fund expenses, carry out renovations, or pay down higher-interest debt. As in the United States before the crash, such practices have been common in Canada. In 2011–2012, \$30 billion in equity was taken out through mortgage refinancing or HELOCs (Dunning/CAAMP, 2012, page 21).

The new federal regulations were implemented to slow both the rise in household debt and the decline in equity positions among Canadian homeowners. These measures are meant to maintain the resilience of the financial and real estate sectors in the face of any potential fall in property values. They also limit the ability of those with small equity positions to use their house to finance renovations, which, while ostensibly increasing the value of the property, could make it difficult for homeowners to sell in a down market.

At the same time, this measure will make it more difficult for those who are already over-extended to use mortgage refinancing to shift their liabilities from higher-interest rate debt (such as credit cards and automobile loans) to lower-interest rate mortgage debt and to consolidate debt. Households that do not own substantial liquid financial assets that can be sold to pay off debt or cover expenses are most vulnerable to lowequity positions. However, if this measure limits the decline in equity positions among Canadian households, there would be more room for such shifting in the future if needed. On balance, the measure is warranted. It is neutral on the issue of fairness.

Lines of Credit No Longer Insurable

Since April 2011, HELOCs and other lines of credit no longer qualify for federal mortgage insurance. Until that point, speculators could use HELOCs to fund down payments on purchases, and as deposits for securing ownership of new units. This practice was rife within the condominium market, where developers had got into the habit of holding pre-showings for wealthy investors who could then purchase multiples of the most desirable units before other Canadians - who were only interested in purchasing units they would themselves live in- got a chance to bid on them, all well before the units were built.

Speculators were able to use lines of credit to secure their claim on such units, and just before closing, sell their claims (these are called "assignment sales"). This practice allowed them to reap a large profit in a growing market, while driving up the cost of such housing, all without having to use any of their own money, and all back-stopped by the Canadian public. This was clearly an unfair situation. Canadians' taxes were being used to help speculators drive up the value of housing before ordinary households even got a chance to bid on it. The measure is warranted, and it is fair.

Increasing the Down Payment on Smaller Rental Properties to 20 Percent

This change occurred in April 2010. Before the change, speculator-investors had been purchasing multiple properties with very little equity, thereby amassing large stocks of real estate for investment purposes and preventing households that wanted to purchase the units to live in them from doing so.

Most importantly, the tax code in Canada actually subsidizes such speculators in rental properties.

It is not well known that in Canada, investors who own rental properties can claim the mortgage interest as a deduction against their income when filing their taxes. Effectively, the Canadian public is subsidizing the mortgage interest of such investors through the tax system. If these speculators are allowed to purchase with zero equity (between 2006 and 2008) or only 5 percent equity (as was allowed until April 2010), Canadian homebuyers who wanted to live in the properties were subsidizing investors to out-bid them for the same properties. Furthermore, by subsidizing bidding wars for such properties, such practices drove up the cost of the properties and thus the rents charged on them.

Increasing the amount that must be put down by such investors reduces (but does not eliminate) this subsidy. It provides for a more (but not a fully) "level playing field" between speculators and Canadian homebuyers who want to live in the housing units. The measure is warranted. It should eventually reduce speculative demand for such investment properties, leading to lower purchase prices and lower rents.

Furthermore, the change is in the direction of greater fairness. However, for this aspect of the mortgage finance system to become truly fair, the ability of investors to claim mortgage insurance as a cost against their income and thus reduce their taxes by taking out large mortgages, should be ended. Hardworking Canadian families should be not be subsidizing the ability of private landlords to amass housing assets.

Insurance Limited to Houses Worth Less than \$1 Million

Finally, the federal government has stipulated that only properties worth less than \$1 million can receive governmentbacked mortgage insurance. It may seem difficult to believe, but in the past, wealthy families and speculators who bought multi-million-dollar homes could have their mortgages guaranteed by the Canadian people, and even packaged into mortgage-backed securities and sold directly to the Canadian people through CHT/CMHC. Because of this situation, the money behind bidding wars for expensive properties in Canada's large cities actually came from everyday Canadian households, backed up by the taxes they pay and the social services (like public health care) that they fund. If the wealthy homeowners who purchased expensive properties with insured mortgages were to default, the banks (and/or investors in Canada Mortgage Bonds, in the case of mortgage-backed securities that were bought by CHT) would get paid fully with money that ultimately has to come out of the federal budget. Effectively, lower- and middle-income Canadian households, many of which are struggling with job insecurity, unemployment and under-employment, and higher costs for everyday items, have insured the wealth of the rich. This situation was

clearly unfair, and needed to end. The measure is warranted and fair.

However, the loan limit could be reduced further. The conforming loan limit in the United States (for insured loans on single-family homes by the Federal National Mortgage Association, known as Fannie Mae, and the Federal Home Loan Mortgage Corporation, known as Freddie Mac) is set at \$625,000, even in the most expensive markets. Why is Canada willing to insure mortgages for wealthier people to live in more expensive homes compared with the United States?

It should be noted that the \$1 million (or \$625,000) purchase limit does not mean that financial institutions cannot provide mortgages to the wealthy, only that such mortgages will not be insured by the Canadian people. The banks are free to lend as much as they like, but for properties valued over the stated limit, they would not be allowed to offload the risk onto the Canadian public. The limit should be reduced further.

Conclusion

The package of regulatory changes that has been implemented by the federal government and the OSFI will bring the regulation of mortgage finance and the criteria for conforming loans roughly back to where they were before 2006. The measures are warranted. Each has important social benefits, either in protecting individual borrowers, enhancing the public good, or limiting the ability of speculators to appropriate housing that would otherwise go to Canadian families needing a place to live while having their speculations subsidized by the Canadian people.

The changes will produce a mortgage finance system that reduces the total interest paid on mortgages (through reduced amortization terms), shifts the balance of access to credit in the direction of prudent borrowers instead of leveraged speculators (who were favoured by the previous system), and prevents borrowers from being coerced into over-extending themselves.

The package of regulatory reforms should work to limit, and perhaps even reverse, the trend towards ever-more regressive distributions of debt as documented since 2007, provided such regulations are kept in place long enough. This would make the distribution of debt fairer than it is now. Unfortunately, many households were drawn into debt at the height of the bubble, and they remain vulnerable, despite the new rules. It would have been even better if lending standards had not been loosened between 2006 and 2008, and if they had been tightened up earlier than 2012. However, it is better late than never.

Under the new rules, middle- and lower-income households will have a greater chance of getting into the housing market in the future, as many of the factors driving up real estate prices beyond the ability to pay of the average Canadian family will be reduced or eliminated.

There are likely to be some macroeconomic impacts from such regulatory changes, particularly in the real estate and financial sectors. The fears of Dunning and the Canadian Association of Accredited Mortgage Professionals (2012) of a housing market correction may be borne out. However, this would

be a *good thing* both for Canadian households and for the Canadian economy. The cost of housing is already far too high, with many seriously and severely unaffordable housing markets, particularly in the large cities (see Demographia, 2012). It is too difficult for average Canadian households to own a house, except at artificially low, emergency-level interest rates, and/or by taking on unsustainable levels of debt. This problem was exacerbated by the incentives created by public policy, and thus public policy needs to change.

To the extent that the new mortgage rules will lead to a correction and lower the cost of housing, this should be hailed as a positive change. Dunning and CAAMP are wrong to criticize the new rules and to argue that housing costs need to be kept artificially high (or kept "in a state of balance" as the report puts it). Their argument partly rests on maintaining the "wealth effect" of high real estate values - if people feel they are rich because their house is worth a lot, they will continue going into debt to support their consumption (often through equity take-out). Dunning/CAAMP argue that it is important to keep real estate values high, instead of risking this wealth effect "turning negative" (Dunning/CAAMP, 2012, page 34). In making these arguments, they are effectively putting the interests of mortgage brokers, real estate agents, and real estate speculators, who stand to lose in any housing downturn, ahead of the interests of lower- and middle-income Canadian households, who will benefit from lower housing costs, lower rents, more choice in the housing market, and most importantly, less of a reason to take on unsustainable levels of debt.

It is mainly in those cities and neighbourhoods where speculation is rife, where houses have been purchased predominantly for their exchange value, and where those who would take on leverage without having a down payment or verified income operate (particularly areas where the average

To the extent that the new mortgage rules will lead to a correction and lower the cost of housing, this should be hailed as a positive change.

cost of housing is greater than \$1 million), that the most intense corrections in property values are most likely to occur. This is as it should be. Until recently, real estate speculators have been able to appropriate ever greater shares of the wealth of Canadians, due to their unequal access to leverage at the expense of lower- and middle-income Canadian households who then had to go into ever more debt to purchase the same homes. It would

be fair if wealthy speculators were the ones to see the value of their real estate holdings fall.

The Canadian economy will benefit from being less indebted, and will as a result be more resilient in the face of future recessions. Unfortunately, the Canadian economy has become ever more dependent on growth in the construction and finance industries, to the detriment of manufacturing and industries that produce more wealth (Rabidoux, 2012). A credit-driven bubble economy is not sustainable, and is not the same thing as an economy in which incomes (rather than credit) drive demand. It is important that the Canadian economy shift more toward the creating and redistributing of wealth, instead of "growing" just because households continue getting into debt. An increasingly indebted economy may be in the interest of the banks and some wealthy asset owners (as well as mortgage brokers), but it is not in the interest of most other Canadians.

The federal changes to mortgage lending are warranted, and are absolutely necessary, particularly if the Bank of Canada intends to keep interest rates low. But the federal government could go further. It could reduce further the cap on the purchase price of houses purchased using conforming mortgages, from \$1 million down to the level in the United States (currently \$625,000). There is no reason why lower- and middle-income Canadian households should be backstopping the mortgages of wealthy speculators.

Furthermore, the federal government should cease the practice of allowing investors to deduct the interest they pay on mortgages for rental properties against their taxes. There is no reason why Canadian households should subsidize landlords, or bidding wars among investors who want to speculate on real estate. Such additional measures would increase the level of fairness in the mortgage lending system.

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