COMMENT ON FHFA MAY 2020 RE-PROPOSED CAPITAL FRAMEWORK FOR FANNIE MAE AND FREDDIE MAC

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The re-proposed "Enterprise Regulatory Capital Framework" for Fannie Mae and Freddie Mac put out for comment by the Federal Housing Finance Agency on May 20, 2020 takes a problematic capital proposal made by the agency in June of 2018 and, instead of improving upon it, makes it inarguably worse.

It is apparent that FHFA began with the intention of requiring Fannie and Freddie's credit guaranty businesses to operate with the same 4.0 percent minimum capital requirement the Basel bank standards impose on commercial banks for the single-family first mortgages they hold in portfolio. FHFA then turned to the risk-based standard, where it added enough new capital cushions and elements of conservatism to the June 2018 version to make it require close to the same percentage amount of capital as the new, much higher, minimum.

I will not speculate on why FHFA chose to require that Fannie and Freddie hold far more capital than necessary to cover the risks of the one business—guaranteeing the credit of residential mortgages—they now are permitted to do. My comment instead elaborates on three points. First, that basing the companies' capital on historical credit loss data will lead to percentage requirements that are far lower than those being proposed by FHFA. Second, that FHFA's arbitrarily high capital requirements will force Fannie and Freddie to charge guaranty fees that are notably out of line with explicit or implicit credit pricing elsewhere in the market. And third, that competition from the Federal Housing Administration and commercial banks will make it extremely difficult for Fannie and Freddie to raise guaranty fees to levels that will provide an attractive return to potential new investors in the companies on the amount of capital FHFA seems intent on requiring them to hold. I close with some observations on how FHFA could, if it wishes, revise the May 2020 proposal to make it more reasonable and workable for the company, its investors, and homebuyers.

Fannie and Freddie's capital must be based on data, not Basel risk weights

Prior to the 2008 financial crisis it was possible to argue that the Basel capital framework designed for international commercial banks also should be applied to Fannie and Freddie, since they competed directly with banks in the portfolio investment business. At December 31, 2007, commercial banks held $2.98 trillion of single- and multifamily mortgages and mortgage-backed securities (MBS) in portfolio, while Fannie and Freddie held a combined $1.45 trillion in single- and multifamily mortgages and MBS as portfolio investments, and earned the majority of their profits from this business. When Treasury put the companies into conservatorship, however, it required each to reduce its portfolio by 10 percent per year (later increased to 15 percent per year), to no more than $250 billion. They did that. At March 31, 2020, Fannie and Freddie's combined portfolios totaled just $362 billion ($151 billion at Fannie and $211 billion at Freddie), or less than 3 percent of total singleand multifamily loans outstanding, and were being run as complements to their credit guaranty businesses. With Fannie and Freddie no longer investing in mortgages for profit, more than all of their former single- and multifamily loan and MBS holdings went to bank portfolios, which at March 31, 2020 totaled $4.62 trillion, for a 36 percent market share.

Today Fannie and Freddie have no business or activity in common with commercial banks. Banks are not in the credit guaranty business at all. Banks originate and service mortgages, which Fannie and Freddie do not do, and have never done. Banks also are deposit-based financial intermediaries, and in that capacity incur substantial liquidity risk (the threat of a "run on the bank"), interest rate risk (some long-duration assets are funded with short-term deposits and purchased funds), and credit risk on multiple asset types (with loss rates much higher than on single-family mortgages). Fannie and Freddie are not intermediaries, and do not have those risks. This absence of any business overlap removes all justification for applying banks' Basel capital standards to Fannie and Freddie, particularly given the widely acknowledged weaknesses of the Basel framework.

Basel I was promulgated in the 1980s with the goal of creating a "level playing field" among large international commercial banks by bringing the capital standards of their regulators into closer conformity. Yet because banks have so many lines of business and risk types, the best any common bank regulatory standard can do is use broad and rough risk categories and percentages to arrive at a total capital level that seems adequate to cover all of a bank's risks combined. Basel I attempted to do this with credit risk weights for five categories of assets (four for U.S. banks), applied to a base capital requirement of 8.00 percent.

At the time it came out, Basel I was criticized for having too few risk categories, and being based solely on credit risk. All bank loan types, except single-family first mortgages, are assigned a 100 percent risk weight. Loans to credit card holders have the same required capital as loans to corporations, even though U.S. banks' historical credit loss rates for the former are seven times higher than the latter. And banks' single-family first mortgages are given a 50 percent risk weight irrespective of their credit scores or loan-to-value ratios, and in spite of the fact that the large majority of these mortgages have 30-year maturities and are financed with deposits and debt with much shorter terms, thus exposing the banks to tremendous liquidity and interest rate risk. The United States' thrift industry was based on this same "borrow short-lend long" model, and it failed catastrophically.

A 50 percent risk weight for all single-family first mortgages that ignores interest rate risk and differences in credit quality may be the best international banking regulators can do given the complexities and intricacies of the tens of thousands of banks in the world, but FHFA has no reason to impose this "one-size-doesn't-fit-all" straitjacket on two companies that take only one type of risk on two types of product (single- and multifamily mortgages) in one currency in one market, and for which ample historical data exist.

FHFA also attempts to justify its 4.0 percent minimum capital requirement for Fannie and Freddie by citing what it terms "peak cumulative capital losses" at the companies of $167 and $98 billion, respectively, in the years following the crisis. These losses were ballooned by the more than $300 billion in non-cash expenses that FHFA, as conservator, required the companies to book based on its estimates or expectations, and over half of those expenses subsequently reversed and came back as income. Fannie and Freddie's capital requirement must be based on actual losses, not artificial or inflated ones.

Data on commercial bank loan losses are readily available from the FDIC going back to 1992—sixteen years before the financial crisis. From 1992 through 2007, the average annual loss rate on all U.S. commercial bank loans was 72 basis points, and for their single-family first mortgages it was 13 basis points (less than 20 percent of the loss rate for total bank loans). Both of these loss rates have been higher since the financial crisis, with the average 2008-2019 loan loss rates rising to 107 basis points for all loans and to 68 basis points for single-family firsts. These higher more recent loss rates raise the averages for the full 28-year period (1992 to 2019) to 86 basis points per year for all bank loans, and to 37 basis points per year for banks' single-family first mortgages.

With access to physical copies of annual reports from my time as CFO, I have Fannie single-family credit loss data since 1992 as well. During the sixteen years before the financial crisis—1992-2007—Fannie's single-family mortgage credit loss rate averaged only 2.5 basis points. (Freddie's pre-crisis loss rates should not be significantly different.) This rate also has averaged much higher from 2008 to 2019, at 31.5 basis points, pushing Fannie's average single-family credit loss rate for the full 28-year period up to 15 basis points.

Two comparisons from these historical data stand out. The first is that during the past 28 years the average loss rate on all commercial bank loans of 86 basis points is 5.7 times as high as Fannie's average 15 basis point loss rate on its single-family mortgages. The second is that the 37 basis-point average single-family first mortgage loss rate at banks over this period is 2.5 times Fannie's 15 basis point average loss rate.

Over the past three decades, single-family first mortgages have accounted for about 20 percent of total bank loans. Since these have a 50 percent risk weight, and all other bank loans have a 100 percent risk weight, the average Basel risk weight for total bank loans is 90 percent. By simple extrapolation, if bank loans with a 90 percent risk weight have had an 86 basis-point annual loss rate over the last 28 years, the 15 basis-point annual loss rate on Fannie's single-family mortgages for the same period should equate to a risk weight of 16 percent, not 50 percent. Even starting with the "rough justice" risk weight of 50 percent for single-family mortgages from the Basel standards, Fannie's 15 basis-point loss rate compared with banks' 37 basis points still would result in a risk weight of only 20 percent.

These data-based risk weights translate to capital in the range of 1.3 to 1.6 percent, which is little different from the 1.5 percent requirement for credit guarantees (or "trust assets") in the "Bifurcated Minimum Leverage Capital Requirement" alternative from FHFA's June 2018 capital proposal. FHFA must return to this alternative for minimum capital. It sets a reasonable floor for the risk-based standard—which as discussed below FHFA also must revise—and unlike the 50 percent Basel risk weight conforms with Fannie's historical loss experience (and almost certainly Freddie's as well).

Excessive Fannie and Freddie capital leads to severe pricing and market anomalies

Six years ago, FHFA was focused on, and concerned about, the market consequences of setting Fannie and Freddie's guaranty fees too high. Acting Director Ed DeMarco had required the companies to increase their guaranty fees by 10 basis points in 2012, to "reduce [their] market share" and "encourage more private sector participation" (which also appear to be objectives of the May 2020 capital proposal). He had scheduled a further 10 basis-point increase for 2014, but incoming Director Mel Watt suspended it pending further review. That spring FHFA published "Fannie Mae and Freddie Mac Guaranty Fees: Request for Input," in which it acknowledged the competitive impact of fee increases, saying, "Finally, it is noteworthy that increases in g-fees [guaranty fees] on higher-risk loans may result in originators insuring/securitizing some of these loans with Federal Housing Administration (FHA)/Ginnie Mae rather than one of the Enterprises. While this substitution would reduce the Enterprises' footprint in the mortgage markets, it would not reduce the federal government's overall footprint. On the other hand, increases in g-fees for lower-risk loans may make it more profitable for banks or other private market participants to retain these loans rather than selling them to the Enterprises."

FHFA did not raise Fannie and Freddie's fees any further following its 2014 guaranty fee review. In fact, after peaking that year at 60.5 basis points (including an extra 10 basis-point fee paid to Treasury, mandated by the Temporary Payroll Tax Cut Continuation Act, or TCCA, of 2011), the companies' guarantee fees on new business averaged almost five basis points lower, at 55.7 basis points, between 2015 and 2019. But even at this lower level there were pronounced effects on the relative business shares of Fannie and Freddie versus commercial banks and the FHA, as FHFA had surmised. Between December 31, 2007 and March 31, 2020, the dollar amount of single-family mortgages guaranteed or owned by Fannie and Freddie rose by less than 20 percent, from $4.25 trillion to $5.06 trillion, while the share of its business with credit scores under 700 fell from 37 percent to 14 percent. In contrast, over the same period bank portfolio holdings of single-family first mortgages and MBS grew by almost 70 percent, from $2.29 trillion to $3.87 trillion. And the volume of Ginnie Mae securities backed by FHA or VA mortgages virtually exploded—increasing by 360 percent from $465 billion at December 31, 2007 to $2.14 trillion at March 31, 2020.

Fannie and Freddie's guaranty fees today are based on FHFA's "conservatorship capital" requirements, which are consistent with its June 2018 capital proposal. FHFA's May 2020 proposal would raise the required capital on Fannie and Freddie's September 30, 2019 books of business from $137 to $243 billion, or by 77 percent, relative to the June 2018 proposal. Such a massive hike in required capital, if passed on as higher guaranty fees, would greatly exacerbate the pricing disparities with the FHA and banks that already exist, resulting in an even greater skew in relative financing shares than has occurred to date.

The FHA's new business in 2019 had an average loan-to-value (LTV) ratio of 91.6 percent and an average credit score of 670. The table of "Performing Loan Base Risk Weights" from FHFA's May 2020 capital proposal assigns a risk weight of 119 percent—or 9.5 percent capital—to this combination of LTV and credit score if the loans are guaranteed by Fannie or Freddie. But Fannie and Freddie's high LTV loans have private mortgage insurance

(PMI), whereas the same loans guaranteed by the FHA do not. Removing the credit for PMI pushes the required capital for the FHA's average 2019 business, if done by Fannie or Freddie, to 16 percent, plus a 1.5 percent buffer. The FHA's statutory minimum capital requirement is 2 percent, and at the end of its 2019 fiscal year its total capital resources were 4.5 percent of insurance in force. FHFA's May 2020 capital rule thus would require Fannie and Freddie to try to price its high LTV-low credit score business off nearly four times the capital the FHA now holds, and more than eight times its statutory minimum.

The May 2020 capital proposal would result in a similar market challenge with respect to commercial banks. Fannie and Freddie would be able to use their proposed 4.0 percent minimum capital only to make credit guarantees, for which their average net fee on new business in 2019 (after TCCA payments to Treasury) was 46 basis points. Banks can use their 4.0 percent minimum capital to buy mortgages with the same credit risk as Fannie and Freddie take, but then fund them with short-term, maturity-mismatched consumer deposits and purchased funds and earn a spread of over 300 basis points. Banks' ability to earn income from both credit and interest rate risk-taking is an enormous advantage when overcapitalization pushes guaranty fees to levels that become disconnected from the risk of the underlying loans. Fannie and Freddie have no alternative but to attempt to charge those fees to earn a market return on their capital, whereas banks can, and do, accept modestly lower spread income and still retain or buy mortgages that are highly profitable for them.

There are market limits to increases in guaranty fees

There are limits to how much Fannie and Freddie can raise guaranty fees before they lose significant business to the FHA or commercial banks, and data from FHFA's 2014 document "Fannie Mae and Freddie Mac Guaranty Fees: Request for Input" help define them.

In this document there is a table showing Fannie and Freddie's target and charged guaranty fees on the business they did in the first quarter of that year, for each of nine combinations of LTV and credit score ranges. From the table it is possible to deduce that at this time the companies' average required conservatorship capital was a little over 3.00 percent, and that they were targeting an after-tax return on equity (ROE) of 11.0 percent. Achieving this required them to charge an average guaranty fee of 72 basis points (including the 10 basis points for TCCA), but there was a marked difference between the 35 basis-point target fee for the least risky 20 percent of that quarter's business and the 130 basis-point target fee for the riskiest 20 percent. (The target fee for the middle 60 percent was 65 basis points.)

How the companies actually priced those segments of their business is instructive. They charged 50 basis points for their least risky loans (15 more than the target fee), 58 basis points for the medium-risk 60 percent of their loans (7 less than the target fee), and only 76 basis points for their highest-risk loans (54 less than the target fee). The huge shortfall in the fee on the riskiest 20 percent of Fannie and Freddie's business—and the modest underpricing of their business with medium risk—caused their average charged fee overall to be only 60 basis points, not 72. Consequently, their return on conservatorship capital for that quarter's business was only 8.5 percent, far below their 11.0 percent target.

Looking back, it seems clear what happened. Fannie and Freddie's average charged fee in 2013, including the 10 basis points for TCCA, had been 55.0 basis points. When it rose to 60.5 basis points in 2014, the companies' outstanding credit guarantees fell, by 0.5 percent. Then as they cut their fees over the following three years, their business growth resumed. These volume effects, viewed in the context of the pricing grids, strongly suggest there may be something of a "pricing resistance wall" when Fannie and Freddie's average guaranty fee rises above 60 basis points. Specifically, when the fee on lower-risk loans exceeds 50 basis points larger volumes of business shift to the banks, and when the fee on higher-risk loans exceeds 75 basis points similar volumes of business shift to FHA, or don't get done at all.

Given Fannie and Freddie's average net fee on new business in 2019 of 46 basis points, the capital required by FHFA's May 2020 proposal would produce a sustainable ROE of about 8.0 percent, far below the 12.0 percent average ROE of commercial banks. The companies' ROEs would rise to around 10.0 percent if the TCCA is allowed to expire in October of 2021 and they retain the 10 basis points they have charged for this tax over the past nine years. But this is not a sure thing. And in any event, guaranty fee increases much beyond their current total of 56 basis points (including the TCCA fee) seem likely to trigger competitive and borrower responses similar to what Fannie and Freddie experienced in the middle of the last decade.

For this reason, significant increases in guaranty fees do not appear to be either a sure or a sufficient means of remedying the damage to Fannie and Freddie's business caused by the imposition of a 4.0 percent minimum capital requirement. To permit Fannie and Freddie to be competitive in the market, FHFA must lower that minimum to one better aligned with the companies' historical credit losses, as discussed above, and also re-do the May 2020 risk-based standard to eliminate its excessive conservatism, whose purpose was to push required risk-based capital up to a level approximating the arbitrary Basel bank minimum.

FHFA must re-do, and greatly simplify and clarify, its risk-based capital standard

A properly designed, and transparent, risk-based capital standard for Fannie and Freddie would have three distinct and clearly identified components: (a) the amount of initial capital required to survive the FHFA-defined stress environment; (b) other required capital to cover operations and other risks, as well as model risk or imprecisions in the stress test, and (c) a level of "buffer capital" sized to ensure continued access to the debt and equity markets throughout the stress period. Once the risk-based standard has been specified, FHFA would set a data-driven minimum capital percentage to serve as a floor for the risk-based standard, which would be binding only under extreme or unusual circumstances.

FHFA's calculation of the <u>amount of initial capital</u> in its June 2018 capital proposal suffered from having cushions and elements of conservatism suffused throughout the stress test in ways that made them difficult to discern or quantify. The most obvious was not counting guaranty fee income as an offset to credit losses, which is particularly punitive to affordable housing borrowers. The May 2020 stress test still does not count guaranty fee income, and adds even more elements of conservatism that raise gross required credit risk capital on

Fannie and Freddie's September 31, 2019 books of business from $127 billion in the earlier version to $152 billion. Included in the additional conservatism of the May 2020 proposal is a 15 percent risk weight (or 1.2 percent minimum capital requirement) on all loans guaranteed by Fannie and Freddie irrespective of risk, which if not rescinded would further penalize affordable housing borrowers by drastically reducing the amount of "excess" fees on low-risk loans available to be used as cross-subsidies for higher-risk loans.

In a re-specified risk-based capital rule, FHFA must begin with a "clean" stress test—drawing on Fannie and Freddie's historical data to project the amount of initial capital required to cover all credit losses projected through the stress period, without cushions or add-ons. If guaranty fees generated during the stress test are not counted as offsets to credit losses, they must be counted in determining the size of the companies' going-concern capital buffer, as discussed below. And while the calculation of required initial stress capital should be straightforward, FHFA should disclose the results of the stress tests run independently by Fannie and Freddie (in what FHFA calls the "advanced approach") as well as its own results, to ensure consistency and transparency.

<u>Other required capital</u> must be clearly identified, described and defended. Aggregate required capital to cover cushions and add-ons for market, operations and other risks also must be in reasonable in proportion to the amount of initial capital required to pass the stress test, so that Fannie and Freddie's guaranty fees are driven principally by the credit risk of the underlying loans, not the cushions and add-ons.

In addition, FHFA must seriously reconsider its decision to base the companies' risk-based standard on mark-to-market rather than original LTVs. The "collars" on market value LTVs in its May 2020 proposal do reduce some of the procyclicality of the earlier version, but they still subject the companies to very large increases in required capital during a severe downturn. The FHFA stress test assumes a 25 percent decline in home prices, and should anything approaching that occur there would be a period when home prices fall from above the "collar zone" to below it, subjecting the companies to the effects of a 10 percent rise in mark-to-market LTVs. That would increase their required risk-based capital by more than 1.0 percent, throwing them out of capital compliance. Unless FHFA switches to original LTVs, Fannie and Freddie would need to hold enough excess capital to cover this risk, making their effective capital requirement that much higher (in effect, a "hidden cushion").

There are three separate <u>capital buffers</u> in the May 2020 proposed risk-based standard: a stress capital buffer (0.75 percent of adjusted assets), a stability capital buffer (keyed to FHFA's definition of each company's "market share"), and a countercyclical capital buffer (initially zero, but it could be imposed in times of stress). The *stability capital buffer* must be eliminated entirely, because it is based on an inaccurate definition of market share and a misunderstanding of the systemic risks that produced the mortgage and financial crises.

Today Fannie and Freddie "finance" very few mortgages, as they have been required to exit the portfolio investment business. Instead, they guarantee mortgage credit, allowing others such as capital markets investors and banks to finance them without having to worry about the risk of repayment by each individual borrower. For this service they receive a relatively small fee compared with the spread earned by the funder of the mortgage. It is not correct for FHFA to assert that Fannie and Freddie have a "44 percent share of the single-family mortgage market." They do not. They operate only in the credit risk management segment of that market, along with private mortgage insurers who also earn revenues on many of the loans Fannie and Freddie guarantee. Weighting all mortgage market activities—origination, servicing, credit risk management and funding—by the revenues available to be earned in them, Fannie and Freddie's combined total mortgage market share is only about 2 percent, well below the 5 percent threshold for FHFA's punitive capital surcharge.

Moreover, it is a misreading of history to equate a large volume of credit guarantees by Fannie and Freddie with greater systemic risk. The huge jump in mortgage credit loss rates for banks, Fannie and Freddie during and after the 2008 crisis was caused by <u>less</u> credit guaranty business being done by Fannie and Freddie, not more. From the early 1990s through the mid-2000s, Fannie and Freddie's dominance as secondary market credit guarantors enabled them to exert strong influence over national underwriting standards. But in the early 2000s, concerns by Treasury and the Federal Reserve over rapid growth in the companies' portfolios led them to support the creation of an alternative, unregulated financing mechanism using senior-subordinated private-label securities (PLS) to compete with Fannie and Freddie. By 2005, issuance of PLS exceeded the issuance of MBS by Fannie, Freddie, and Ginnie Mae combined. At that point, Fannie and Freddie no longer could enforce their underwriting disciplines; originators could sell loans through PLS, whose issuers were not exposed to the losses on them and thus had no incentive to limit their risk. Undisciplined underwriting became the norm, leading to the boom and bust that followed. A proper reading of the financial crisis is that having companies that specialize in credit risk management, with their own capital at stake, playing the lead role in setting national mortgage underwriting standards is a clear benefit, and leads to lower, not higher, credit losses for the system as a whole. FHFA has this exactly backwards with its "stability buffer".

The *stress capital* buffer is a valid concept, but it is a mistake to view this buffer for Fannie and Freddie as the equivalent of the "capital conservation buffer" proposed in Basel III for banks. The Basel III buffer was a response to the realization that during the financial crisis banks experiencing credit losses were subject to runs by depositors and holders of short-term certificates of deposit, which could cause a bank to become insolvent long before its credit losses did. That is a much lesser concern for Fannie and Freddie. They have relatively little debt compared with the volume of their credit guarantees, and even in a stress period their credit losses unfold relatively slowly, as evidenced during the 2008-2012 period.

Sizing the stress capital buffer at 0.75 percent of assets seems reasonable, provided that FHFA remedies an inconsistency in the construction of this buffer that exists not just in the current proposal but in the equivalent going concern capital buffer from the June 2018 version: Fannie and Freddie are required to have sufficient capital to remain as going concerns, yet the structure of their risk-based capital requirement assumes that they are <u>not</u> going concerns. Were the risk-based capital stress test to be done on a going-concern basis, (a) guaranty fees from loans that remain on the books during the stress test would count towards covering credit losses, (b) liquidated loans would be assumed to return as new business, with guaranty fee rates at the previous year's new business average, and (c) the companies' initial capital would be calculated based not on lifetime credit losses but on cumulative losses up to the point at which income from new business is sufficient to return each company to its fully capitalized level.

Along these lines, the stress capital buffer could be integrated into the risk-based capital stress test. Required gross credit risk capital would be the amount necessary to keep each company's capital above 0.75 percent of adjusted assets (the stress buffer) throughout the stress period, while allowing capital to rebuild through assumed new business until each company once again is fully capitalized. But should FHFA elect not to follow this approach, it must at a minimum count guaranty fee income on existing business in its base stress test, just as the Federal Reserve counts bank income in the Dodd-Frank stress tests it conducts for large commercial banks. FHFA then would add the 0.75 percent stress buffer to the result of that test.

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It is clear that FHFA engineered its May 2020 capital proposal to inhibit Fannie Mae and Freddie Mac from fulfilling their charter purposes of providing "ongoing assistance to the secondary market for residential mortgages," by requiring the companies to capitalize their credit guarantees in amounts grossly disproportionate to their risks, which in turn forces them to price that business at levels starkly at odds with the explicit or implicit pricing of mortgage credit risk by other sources of finance, notably the FHA and commercial banks.

Less clear is what FHFA seeks to achieve through this policy. Yet without changes to the May 2020 re-proposal along the lines of this comment, homebuyers will face unnecessarily higher costs and reduced availability of mortgages, and the mortgages that are made will pose much more risk to the financial system. Loans that could be safely guaranteed by Fannie and Freddie were they to be given reasonable capital requirements will instead go to the FHA—which has far less capital and is backed directly by taxpayers—and to banks, which are taking the same mismatch risk that caused the thrift industry to fail by funding long-term fixed-rate mortgages with short-term consumer deposits and purchased funds, at a time of historic lows in interest rates. Furthermore, overcapitalizing Fannie and Freddie to the point of inefficiency and non-competitiveness will make FHFA's goal of attracting the new equity required to quickly remove them from conservatorship much more difficult, if indeed attainable at all.

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